Nurturing Families Network 2010 Annual Evaluation Report

Nurturing Families Network:
2010 Annual Evaluation Report

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Executive Summary

The Nurturing Families Network, funded by the Connecticut Children's Trust Fund, is a statewide system of continuous care designed to promote positive parenting and reduce incidences of abuse and neglect. The program focuses on high-risk, first-time mothers and starts working with them at or before birth.

This year's report is divided into five sections: NFN Program Overview, 1995-2009; NFN Statewide Annual Evaluation, 2009; NFN Urban Focus, 2009; State Reports of Child Maltreatment; and Home Visitation for Fathers: Preliminary Results from a Pilot Project . The report provides enrollment data for the 7,241 first-time families screened through the Nurturing Connections program and it provides descriptive and outcome data for 1,997 home visiting participants through the end of the calendar year 2009.

Through the years, NFN staff have been successful in recruiting a high risk population of first-time parents and providing them with intensive home visiting services. Since 1999, 50,063 first-time mothers have been screened for NFN services, 15,930 of whom screened at high risk for poor parenting. A total of 6,552 of these families have received intensive home visitation services. These families showed significant change on our standardized measures. Families that have participated in home visiting for at least one year have significantly reduced their risk for child abuse and neglect (as measured by the Child Abuse Potential Inventory– Rigidity subscale) as well as significantly increased their knowledge and use of resources in the community (as measured by the Community Life Skills scale).

In 2009, 7,241 first-time families were screened by NFN staff. This is a decrease from the 8,499 screened in 2008; during 2009 many sites were at or close to capacity and therefore had fewer program openings. There was, however, an increase in home visiting participation with 1,997 families receiving NFN home visiting services in 2009 compared to 1,716 in 2008. Enrollment data indicate that slightly more than half of participants initially agree to home visiting services, and 66% of those that accept go on to receive home visiting services.

The rate of offering Nurturing Connections phone support and referral services to low risk families in Hartford (19%) was substantially lower than statewide (67%), and indicates that Hartford sites are screening beyond their capacity. In addition, enrollment data for New Haven indicated fewer of those who were offered home visiting went on to receive services (32%) compared to statewide (35%) and Hartford (40%).

Home visiting participants across the state in 2009 were a diverse group, with 46% Hispanic, 23% White, and 20% Black. Forty-five percent of participants were teenage mothers and two-thirds of younger mothers had not yet completed high school when they entered the program. One-third of mothers were described as socially isolated and 72% were struggling financially.

As in previous years, outcomes for NFN participants were positive in 2009. Participants in the program one and two years as of 2009 made significant gains in education, employment and independent living. Use of government assistance also increased significantly in the first year. Participants also made significant improvements on our standardized measures. Data from the Community Life Skills Scale showed that families became more knowledgeable about community resources and how to access them after one and two years. Further, participants also reduced their rigid parenting attitudes significantly after one and two years.

The NFN annual rate of abuse and neglect remained low: 2% for the 2008/2009 year. Most substantiated reports were for physical neglect, with one report of physical abuse and one report of medical neglect. Fathers were involved as perpetrators in 8 of the 13 substantiated cases, an increase in father involvement in DCF reports from last year. Mothers were also involved in 8 of the 13 substantiated reports. The NFN maltreatment rate is higher than the overall state rate of 1.1%, which we might expect given NFN's high risk population. When compared to maltreatment rates provided by other home visiting prevention programs across the country, NFN's rate compares favorably and falls in the lower part of the 1% to 8% range.

In October 2008, a Fatherhood Subcommittee was convened with the goal of redesigning traditional NFN home visiting services to be more father-friendly. Shortly after, a funding opportunity arose for a small group of sites to expand their services. On March 1, 2009, a home visiting pilot for fathers officially began in five NFN sites. As of the end of 2009, 33 fathers had participated in the pilot project. Twenty-one percent of these participants are teen fathers and 35% did not have a high school education. Thirty-eight percent of fathers were employed and three quarters were struggling financially. In future reports, we will examine outcome data on parenting attitudes, use of community resources, and beliefs on the role of fathers to determine if, and how, fathers change during the course of their participation in the pilot program.

Introduction

Overview of Report

This report is divided into five sections. The first section, **NFN Program Overview, 1995-2009**, gives a brief description of the evolution and components of the program including Nurturing Connections, Home Visitation, and Nurturing Parenting Groups, and reports on *NFN's aggregate* data for all families who participated in NFN since program inception.

The second and third sections report on *NFN's 2009 annual data*. Section two, **NFN Statewide Annual Evaluation, 2009**, reports on data across all program sites statewide. Section three, **NFN Urban Focus**, **2009**, reports on the progress of the ten program sites in Hartford, the first city to go to scale in 2005, and the eight program sites in New Haven, the second city to go to scale in 2007. In these sections, enrollment, descriptive, and outcome data are examined for high-risk families who received home visitation.

In the fourth section, **State Reports of Child Maltreatment, 2008/2009,** we document both substantiated and unsubstantiated reports of abuse and neglect for NFN home visitation families, statewide.

In the fifth section, **Home Visitation for Fathers: Preliminary Results From a Pilot Project**, we report on a pilot project to use male home visitors to provide services to fathers in five NFN sites. Demographic and risk profiles are provided, as well as data on program participation.

Analyses of data

Where applicable, family profiles, program participation rates, and outcome data are compared across several years showing trends over time. By charting program performance in the same areas over time, the performance history serves as a basis for judgment; that is, prior performance serves as a benchmark for current performance. In addition, we use a pre-post design and analyze change in the areas that the program is attempting to impact by testing mean scores (or averages) at different points in time for statistical significance using a repeated measures analysis of variance test. Key findings from analyses are highlighted for the following sections: aggregate data across time (since program inception), statewide annual data, Hartford annual data, and New Haven annual data. Findings from the examination of abuse and neglect reports are also summarized.

Section 1:
NFN Program Overview
1995-2009

In this section we describe the Nurturing Families Network, the different components of the program and how families are enrolled.

- We compare data across program years on the number of first time mothers who have been screened for services and the number of families who received home visitation by program site.
- Participation and retention rates are also compared across program years.
- Analyses of outcome data, specifically change in parents' attitudes and use of community resources over time, is presented for all families who participated in the program since program inception.

NFN Statewide System of Care

First time mothers in CT

High risk
for poor parenting

Low risk
for poor parenting

Nurturing
HOME VISITING

NURTURING
CONNECTIONS

Family accepts

Family declines

Family accepts

Family declines

Family is referred to other services within NFN or in the community

Family referred to services in the community

NURTURING PARENTING GROUP
Available to all parents in the NFN system and community

Figure 1. NFN System of Care

The Nurturing Families Network is designed to provide a continuum of services for families in the state. The flowchart illustrates how families enter the NFN system and the various paths they may follow. All NFN services are voluntary, thus there are many steps at which families can either refuse services or be referred to other community services.

NFN Program Components

NFN's mission is to work in partnership with first-time parents by enhancing strengths, providing information and education, and connecting them to services in the community when needed. It is made up of three components:

- *Nurturing Connections* Nurturing Connections staff conduct the screening of all first-time mothers, identifying parents at low risk or high risk for poor parenting and child maltreatment. Nurturing Connections staff also provide telephone support and referral services for low-risk mothers.

- *Nurturing Home Visiting* High-risk families are referred to Nurturing Home Visiting for intensive parent education and support in the home, and home visitors help link families with needed resources and assistance for up to five years.

- *Nurturing Parenting Groups* Community-based parenting education and support groups are offered to all families at various risk levels, including all parents who enter the NFN system as well as parents in the community.

Nurturing Connections: Screening First Time Mothers 1999-2009

The Nurturing Connections component was first established in 1999 as an initial step in providing universal screening of all first-time mothers in Connecticut. It is currently operating out of all 29 birthing hospitals in the state. Screenings are also conducted in clinics and community agencies, and the current goal is to reach as many families as possible at the prenatal stage. As shown, the Revised Early Identification (REID) screen, used to determine eligibility, consists of 17 items that research has shown increases the probability of child maltreatment. In order to screen positive (i.e., high risk) on the REID, a person must have either (a) three or more true items, or (b) two or more characteristics if one of them is item number 8, 11, 14, or 15, or (c) have eight or more "unknown" items (i.e., information on at least 8 items is not available).

The percentages of first-time mothers that scored as high risk by year are as follows: 1999– 30%, 2000– 36%, 2001– 24%, 2002– 26%, 2003– 24%, 2004– 29%, 2005– 33%, 2006– 34%, 2007– 33%, 2008-34%, and 2009-36% (the highest percentage of high risk since 2000). On average, 32% of these families have been identified as high risk. In 2009, 7,241 first-time mothers were screened; 4,631 were identified as low risk, and 2,610 were identified as high risk.

Figure 2 shows that as the program sites expanded across the state, there has been a comparative increase in screenings. The biggest increases occurred with the expansion in Hartford in 2005, and a similar expansion in New Haven which started late 2007 and into 2008. In 2009, however, there was a decrease in the total number of screens completed. This makes sense, programmatically, as many sites were reaching capacity and did not screen if they did not have available spaces.

The Revised Early Identification (REID) Screen for Determining Eligibility
1. Mother is single, separated, or divorced
2. Partner is unemployed
3. Inadequate income or no information
4. Unstable housing
5. No phone
6. Education under 12 years
7. Inadequate emergency contacts
8. History of substance abuse
9. Late, none, or poor prenatal care
10. History of abortions
11. History of psychiatric care
12. Abortion unsuccessfully sought or attempted
13. Adoption sought or attempted
14. Marital or family problems
15. History of, or current depression
16. Mother is age 18 or younger
17. Mother has a cognitive deficit

Figure 2. Number of First Time Mothers Screened, 1999-2009
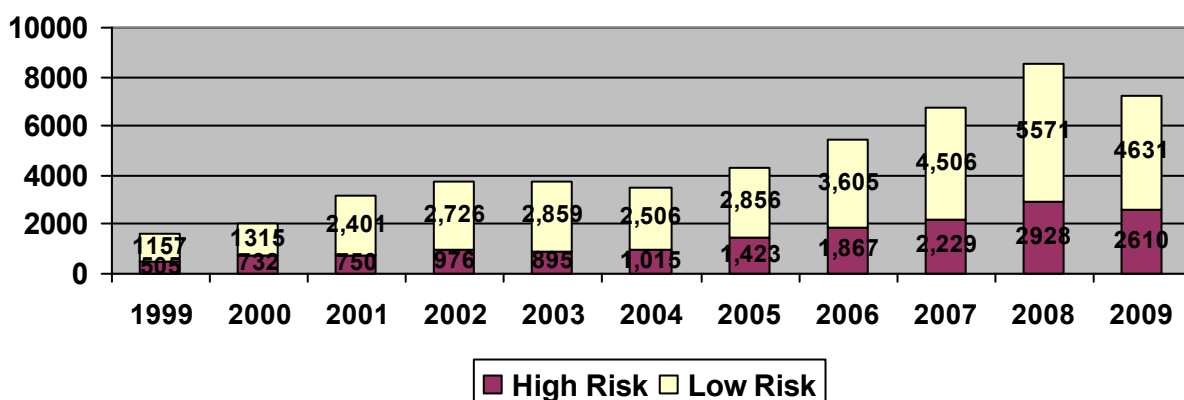
Program Sites and Families Served Since 1995

Table 1 shows that by the end of 2009, there was a total of 42 home visiting sites statewide and 6,552 families who have received home visiting services since NFN program inception in 1995. (Note that the total number of families served at NFN sites excludes 84 families who received services at more than one site.) As of the end of 2009, there were 1,156 families who were active participants.

Table 1. Number of Families Served at Each Program Site Statewide			
Program Sites	**First Year Offered Services**	**Number of Families Served**	**Active Families as of end of 2009**
Hartford VNA	1995	578	50
WellPath (Waterbury)	1995	481	43
So. Central VNA (New Haven)**	1996	407	37
Bridgeport Child Guidance Center*	1996	537	60
ECHN (Manchester)	1996	445	46
Lawrence & Memorial Hospital (New London)	1998	198	23
Yale/New Haven Hospital**	1998	311	57
Families Network of Western CT (Danbury)	1998	254	27
Family Strides (Torrington)*	1999	284	46
Generations, Inc. (Willimantic)	1999	226	36
Hartford Hospital	1999	Connections & Group services only	
Family & Children's Agency (Norwalk)	2000	177	21
Madonna Place (Norwich)	2000	205	28
Hospital of Central Connecticut (New Britain)	2000	159	31
Family Centers (Stamford)	2000	141	35
St. Francis Hospital**	2000	183	35
Community Health Center (Meriden)	2002	140	35
Middlesex Hospital	2002	122	29
StayWell Health Center (Waterbury)	2002	145	26
Day Kimball Hospital (Putnam)	2005	90	19
Family Centers (Greenwich)	2006	59	32
Bristol Hospital	2006	69	29
4C's (New Haven)	2006	115	32
Asylum Hill (Hartford)	2005	94	11
El Centro (Hartford)	2005	77	26
Hispanic Health Council (Hartford)	2005	58	28
MIOP (Hartford)	2005	129	26
Parkville (Hartford)	2005	90	30
RAMBUH (Hartford)	2005	87	27
Southside (Hartford)	2005	137	17
Families in Crises (Hartford)	2005	85	30
New Milford VNA	2007	32	19
UCONN Health Center (Farmington)	2007	64	19
Community Health Resources (Enfield, Somers)	2007	37	8
City of New Haven Health Department	2007	57	23
Children's Community Programs (New Haven)	2007	48	15
Fair Haven (New Haven)	2007	44	30
Hill Health (New Haven)*	2007	107	37
St. Raphael's Hospital (New Haven)	2008	66	33
	TOTAL	6,552	1,156
* These sites cover two hospitals/service areas ** This site have more home visitors than other sites			

Engaging Families
NFN Home Visitation, 1995-2009

Home Visiting Participation by Year Since 1998
As the program sites expanded across the state, there has been a comparative increase in screenings and participation in the home visiting program. Since 1999, a total of 50,063 first-time mothers have been screened for services. Across the years 1999 to 2009, 32% or 15,930 of the first-time mothers who were screened, were identified as high risk for poor parenting and eligible for home visiting services. Figure 3 shows the biggest increases in participation occurred with the expansion in Hartford in 2005 and a similar expansion in New Haven in 2007/2008. Although there has been a decrease in screening in 2009 (as shown on page 4), the number of participants in the home visiting program has continued to rise.

Figure 3. Home Visiting Participation Rates by Year Since 1998
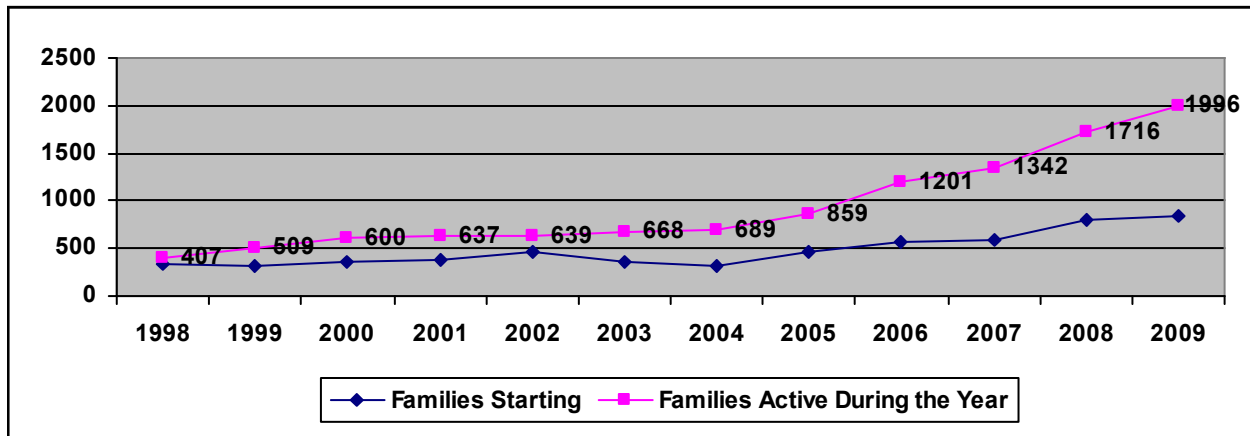
Program Retention Rates: 6 Months, 1 Year, 2 Years
Families can receive intensive services in the home for up to 5 years. Figure 4 shows 6 month, 1 year and 2 year retention rates for each cohort for every program year since its inception in 1995. On average, 74% of families have remained in the program for at least six months, 54% have remained in the program for at least one year, and 33% have remained in the program for at least two years. Ten percent have taken advantage of the program for the full five years.

Figure 4. Program Retention Rates by Year of Program Entry
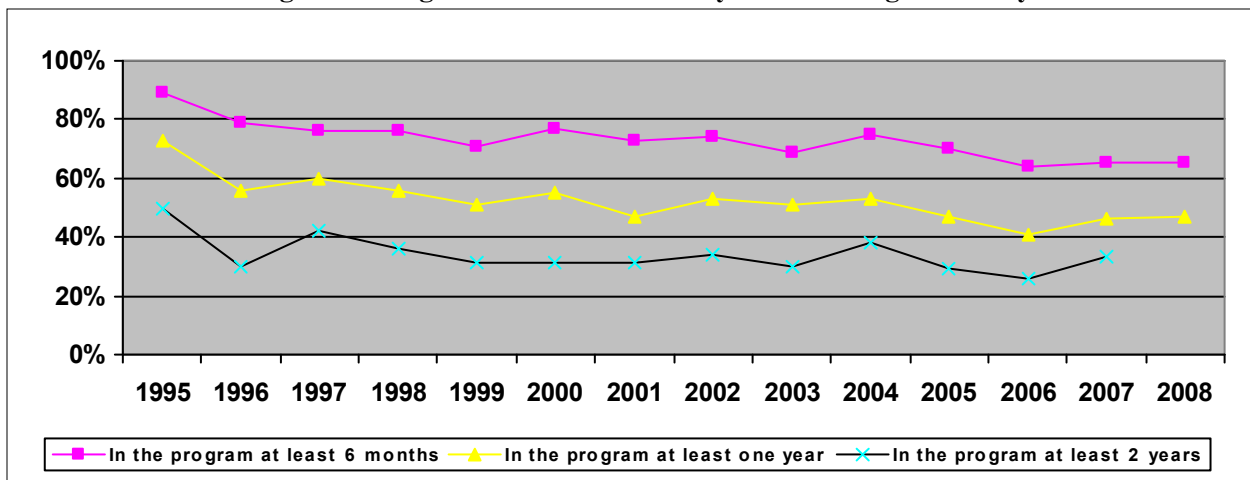
Change in Parenting Attitudes and Utilization of Community Resources Over Time, 1995-2009

In Table 2 we present outcome data on the Child Abuse Potential Inventory– Rigidity subscale (CAPI-R), a self-report standardized instrument designed to measure rigid parenting beliefs, for all families who participated in NFN since program inception in 1995. Data on the CAPI-R were analyzed separately (in a repeated measures analysis of variance) for all mothers who were active for one, two, three, four, and five years and who had completed the CAPI– R for each year that they participated.

- There were significant reductions in rigid parenting attitudes at each annual administration, with greater change seen in families who had participated in the program for multiple years.

Table 2. Change in Rigid Parenting Attitudes for 1, 2 3, 4 and 5 Year Participants, 1995-2009					
1 Year Capi R (N=1752)	**Entry**	**1 Year**			
Rigidity	25.3	20.8***			
2 Year Capi R (N=813)	**Entry**	**1 Year**	**2 Year**		
Rigidity	25.2	20.5	18.1***		
3 Year Capi R (N=405)	**Entry**	**1 Year**	**2 Year**	**3 Year**	
Rigidity	25.2	19.8	17.4	17.2***	
4 Year Capi R (N=200)	**Entry**	**1 Year**	**2 Year**	**3 Year**	**4 Year**
Rigidity	24.9	19.8	16.6	17.5	15.9***
5 Year Capi R (N=101)	**Entry**	**1 Year**	**2 Year**	**3 Year**	**4 Year**	**5 Year**
Rigidity	23.4	18.4	16.1	16.9	15.7	14.1***
*p<.05 **p<.01 ***p<.001					

In Table 3, we present outcome data on the Community Life Skills (CLS) scale, an instrument that measures knowledge and use of community resources, for all families who have participated in NFN since 2004 (when we began using the CLS). The CLS is broken down into several subscales; transportation, budgeting, support services, support/ involvement, interests/hobbies, and regularity/ organization/routines. Data on the total CLS were analyzed separately (in a repeated measures analysis of variance) for all mothers who were active for one, two, three, and four years and who had completed the CLS for each year that they participated.

- Outcome data indicate significant increases in knowledge and use of community resources for families who participated in NFN at each program year.

Table 3. Change in Utilization of Community Resources for 1, 2 3, and 4 Year Participants, 2004-2009					
1 Year CLS (N=926)	**Entry**	**1 Year**			
Total Score	23.5	25.6***			
2 Year CLS (N=361)	**Entry**	**1 Year**	**2 Year**		
Total Score	23.9	26.0	26.4***		
3 Year CLS (N=148)	**Entry**	**1 Year**	**2 Year**	**3 Year**	
Total Score	24.0	26.3	26.3	27.0***	
4 Year CLS (N=44)	**Entry**	**1 Year**	**2 Year**	**3 Year**	**4 Year**
Total Score	23.4	25.7	25.4	26.6	26.8**
*p<.05 **p<.01 ***p<.001					

Program Overview, Summary of Key Findings, 1995-2009

Screenings and Program Participation

The Nurturing Families Network, a system of care that provides a continuum of services to first-time mothers, has expanded across the state over the past 14 years. With this expansion there has been a comparative increase in screenings and program participation.

- Since 1995, the NFN program increased from two to forty-two program sites and by 2009 7,241 mothers were screened for services, and 1,996 received home visiting services during the year.
- The Nurturing Connections component, first established in 1999 as an initial step in providing universal screening of all first-time mothers in Connecticut, is operating out of all 29 birthing hospitals. Screenings are also conducted in clinics and community agencies, and the current goal is to reach as many families as possible at the prenatal stage. Since 1999, a total of 50,063 first-time mothers have been screened for services. Across the years, 1999 to 2009, 32% or 15,930 of the first-time mothers who were screened, were identified as high risk for poor parenting.
- A total of 6,552 families identified as high risk have received home visitation services since 1995. There were 1,156 active home visiting participants at the end of the 2009 program year.

Retention Rates and Outcome Data

- Overall, 74% of families participated in the program at least 6 months, 54% for one year, 33% for two years, and 10% for the full five years.
- Families who have participated in the program for 1, 2, 3, 4 and 5 years show significant change on our measures of rigid parenting and utilization of community resources for each year of their participation.

Section 2:
Statewide NFN Annual Evaluation, 2009

In this section of the report we provide 2009 annual data across NFN programs in the state:
- Screening and enrollment for both low-risk and high-risk families are examined.
- Family profiles, including risk factors, social demographic characteristics, household data, and education and employment information are described for families receiving home visitation services.
- Data on program participation, rates of retention, and parent outcomes are analyzed for families receiving home visitation.

NFN Program Enrollment, Statewide Data, 2009

In this section, we provide enrollment data for those who screened at low-risk (and participated in Nurturing Connections) and those who screened at high risk (and participated in home visiting services).

Disposition of Low Risk Screens in 2009

In 2009, 4,632 mothers (64%) out of 7,241 were identified as low risk on the REID screen. Sixty-seven percent of those mothers were offered Nurturing Connections telephone support and referral services, and of those offered, a total of 1,743 (56%) mothers, accepted services. As shown in Table 4, the percentage of those who accept Nurturing Connections services was consistent with the 2008 rate, but is still lower than the rates of the previous 3 years. However, the number of those enrolled in Nurturing Connections has remained fairly stable over the years.

Disposition of High Risk Screens in 2009

- As described in last year's report, at the end of 2006, there was a policy change regarding the eligibility and enrollment process for home visiting. Before, a family needed to have a positive

REID screen, then score high-risk on the Kempe (score of 25 or greater) in order to be eligible for home visiting services. Starting in 2007, families only needed a positive REID screen to be eligible for home visiting services, although a Kempe assessment still needed to be completed before services began. This means that offering home visiting now occurs at the time the family is screened, instead of after they had been assessed using the Kempe. Table 5 provides the enrollment data for the past five years.

- As shown in Table 5, in 2009, 2,610 mothers were identified as high risk on the REID screen, 81% of which were offered home visiting services. A little more than half of those mothers offered

initially accepted services. Seventy-one percent of those who accepted services then went on to receive the Kempe assessment, and 93%, or 747, of those who received the Kempe received at least 1 home visit. When we compare the 2009 enrollment data with data from 2008, we see a greater percentage of mothers who initially accepted services in 2009, but a marked decrease in the percentage who received a Kempe assessment. This, however, may be due to the increased structure in which sites now offer the program (has to be a face to face offering) as well as the way they document this information (on an intake with more clearly defined criteria).

Table 4. Disposition of NFN Families Identified as Low Risk, Statewide Data, 2005-2009					
Families Identified as Low Risk	**2005** N=2856	**2006** N=3605	**2007** N=4506	**2008** N=5413	**2009** N=4631
Offered Nurturing Connections	2319 (81%)	2851 (79%)	2946 (65%)	3529 (60%)	3095 (67%)
Accepted Nurturing Connections	1597 (69%)	1861 (65%)	1767 (60%)	1804 (55%)	1743 (56%)

Table 5. Disposition of NFN Families Identified as High Risk, Statewide Data, 2005-2009					
High Risk Families Offered Home Visiting	**2005**	**2006**	**2007**	**2008**	**2009**
Number Identified	**N=1423**	**N=2021**	**N=2229**	**N=2835**	**N=2610**
Offered Kempe (2005 & 2006) Offered Home Visiting (2007-2009)	1092 (77%)	1476 (73%)	1347 (60%)	2088 (74%)	2105 (81%)
Accepted Kempe (2005 & 2006) Accepted Home Visiting (2007-2009)	609 (58%)	697 (47%)	658 (48%)	803 (38%)	1126 (54%)
Received Kempe Assessment	532 (87%)	613 (88%)	649 (99%)	788 (98%)	805 (71%)
Initiated Home Visiting	486 (91%)	579 (94%)	572 (88%)	729 (93%)	747 (93%)
Offered Nurturing Connections	349 (24%)	403 (22%)	533 (24%)	732 (26%)	779 (30%)
Accepted Nurturing Connections	286 (82%)	361 (90%)	346 (65%)	420 (57%)	390 (50%)

NFN Program Enrollment, Statewide Data, 2009, Continued

Barriers to Program Enrollment

There are several reasons that families who are eligible for home visiting do not go on to receive home visiting, including programs being at capacity, NFN staff not being able to have face to face contact with mothers while they are in the hospital, families being DCF involved, families living outside of the catchement area, and families who speak a different language than NFN staff. In this section, we present detailed enrollment data on these high risk families from May through December 2009.

As shown in Table 6, the home visiting program was full in almost half (46%) of the cases where home visiting was not offered to a high risk family. In these cases, home visitors were already conducting between 12-15 home visits per week and could not take any new families. Further, NFN staff could not get face to face contact with families another 22% of the time. This often occurs when mothers give birth on the weekend when NFN programs are not screening, or if the mother is not available at the time when the NFN staff is screening. An additional 9% of families were already DCF involved, and therefore, not eligible for program services. Last, in 5% of cases, the family spoke a different language than the NFN staff did. Of the families not offered home visiting, 38% were offered Nurturing Connections services.

During the 7 month period examined, there were 607 families who were offered home visiting, but declined. As shown in Table 7, 39% of these families felt they had enough support and another 31% were not sure if they wanted home visiting. Other reasons for not accepting home visiting included families moving, not enough time for home visiting and other

household members not approving of services. Of the families who declined home visiting services, 64% were offered Nurturing Connections services and a little more than one-third of those offered accepted services.

Table 6. High Risk Families Not Offered Home Visiting (May-Dec 2009)	295
Home visiting was full	46%
Unable to get face to face contact/family discharged from hospital	22%
DCF involved	9%
Out of catchement area	6%
Language barrier	5%
Other	12%
Positive families offered Nurturing Connections	112 (38%)
# families accepted NC	83 (74%)

Table 7. High Risk Families Offered Home Visiting But Did Not Accept (May-Dec 2009)	607
Family has enough support	39%
Family not sure if they wanted home visiting	31%
Other member of household doesn't approve	6%
No time for home visits	7%
Family moving	2%
Other	15%
Positive families offered Nurturing Connections	387 (64%)
# families accepted NC	140 (36%)

Risk Profiles: Mothers' Kempe Scores, Statewide Data, 2009

The Revised Early Identification (REID) screen is used to determine eligibility for home visiting services.

However, data gathered using the Kempe Family Stress Inventory (Kempe) (administered after family accepts services and before home visiting begins) provides a more nuanced stress profile of participating families.

- As shown in Table 8, the sub-scale that shows the most stress is Childhood History of Abuse/Neglect, with 42% mothers scoring in the severe range. Those scoring in the severe range include mothers who were severely beaten, sexually abused, or were raised by more than two families. Another 20% of mothers also scored in the moderate range on this sub-scale.
- Eighty-one percent of mothers scored in the moderate or severe range on the Multiple Stresses subscale, which covers several constructs (such as financial stressors, quality of relationships, and life changes).
- 79% of mothers scored in the moderate to severe range on the Low Self-Esteem/Social Isolation/Depression subscale and a little more that one-half (52%) of mothers scored in the moderate to severe range on the History of Crime, Substance Abuse, Mental Illness subscale.

Total Kempe scores by year are provided in Table 9 for the past 3 years. These data show a small amount of variation in level of stress from year to year, with the highest stress shown in 2009 mothers (33% scoring in the high or severe range as compared to 24% in 2008 and 29% in 2007).

Table 8. Mothers' Scores on the Kempe Family Stress Inventory Statewide Data, 2009	0 Low	5 Moderate	10 Severe
1. Childhood History of Abuse/Neglect (N=768)	38%	20%	42%
2. History of Crime, Substance Abuse, Mental Illness (N=770)	48%	24%	28%
3. CPS History (N=761)	95%	2%	3%
4. Low Self-esteem/ Social Isolation/ Depression (N=773)	21%	53%	26%
5. Multiple Stresses (N=773)	19%	41%	40%
6. Potential for Violence (N=754)	76%	8%	17%
7. Unrealistic Expectation of Child (N=763)	58%	35%	7%
8. Harsh Punishment (N=760)	86%	9%	5%
9. Negative Perception of Child (N=735)	89%	9%	3%
10. Child Unwanted/ Poor Bonding (N=772)	14%	77%	9%
Mean total score	31.4		

Table 9. Mothers' Total Scores on the Kempe Family Stress Inventory, Statewide Data, 2009	2007	2008	2009
Low Risk (0-20)	32%	40%	33%
Moderate Risk (25-35)	39%	35%	34%
High Risk (40-60)	27%	22%	30%
Severe Risk (65-100)	2%	2%	3%
Mean	30	29	31

Families at Acute Risk

Within the NFN population of high risk families, there is a subgroup of participants who are experiencing particularly acute levels of risk. NFN policy defines an acute family as one that is experiencing an unaddressed mental health problem, untreated substance abuse, or an episode of domestic violence. When a family is acute, the NFN clinical supervisor and home visitor attempt to link the family with appropriate services and, based on the family's compliance, decide if the family is still appropriate for NFN home visiting services. In 2009, 3% of families were acute when they entered home visiting. Further, 6% of all NFN families were acute at some point in the 2009 year. Acute untreated mental health was documented most often in these cases, followed by domestic violence, then untreated substance abuse.

Home Visitation Families at Program Entry
Statewide Data, 2009

Mothers' Household and Demographic Information

Home visitors document families' demographic characteristics within the first month of program services. These data are presented in Tables 10, 11, and 12.

- Forty-three percent of home visiting mothers were screened prenatally, a slight decrease from 46% in 2008 (data not shown).
- Participants were living with their mothers in 40% of families.
- Fathers were living in 41% of the households.
- As reported by the mothers at program entry, seventy-six percent of fathers were at least somewhat involved, and almost two-thirds of the fathers (65%) were very involved with their NFN child.
- As with former years, NFN families are racially diverse with Hispanic families representing the largest racial/ethnic group (46%), followed by Whites (23%), Black (20%), and Other, including multi-racial (10%).

Mothers' Social/Risk Factors

- As shown in Table 11, home visitors considered 72% of mothers to have financial difficulties and 34% to be socially isolated at time of program entry.
- Twenty percent of mothers had an arrest history.
- Only 13% of households received TANF at program entry.

Mothers' Pregnancy & Birth Information

- Health data in Table 12 indicate that 9% of NFN children were born with serious medical problems, a decrease from the 14% in 2008 (data not shown).
- Eleven percent of the mothers smoked cigarettes during pregnancy.
- Ten percent of NFN children were born premature, which is equivalent to the statewide rate of 10.5% (*Connecticut Vital Statistics Report*, 2007), and a decrease from the 2008 rate of 12%.
- Nine percent of NFN children had a low birth weight, which is slightly higher than the state rate of 8.1% (*Connecticut Vital Statistics Report*, 2007).
- Almost all the children have a pediatrician (98%). These rates are comparable with the 2008 rates.

Table 10. Household Data, Statewide, 2009	
Families Screened Prenatally (N=869)	43%
Mother's Marital Status (N=776)	
Single, never married	88%
Married	1%
Divorced, separated, widowed	10%
Mother's Race/Ethnicity (N=774)	
White	23%
Black	20%
Hispanic	46%
Other (e.g., multi-racial)	10%
Mother Age at Baby's Birth (N=628)	
Under 16 years	3%
16-19 years	42%
20-22 years	23%
23-25 years	12%
26 years and older	20%
Median Age	21 years
Maternal Grandmother Living in the Household (N=758)	40%
Father Living in the Household (N=758)	41%
Father's Involvement With Child (N=452)	
Very involved	65%
Somewhat involved	11%
Sees child occasionally	6%
Very rarely involved	1%
Does not see baby at all	17%

Table 11. Mothers' Social Problems/Risk Factors, 2009	
Mother's Social Isolation, Arrest Histories, and Financial Difficulties	**2009**
Mothers socially isolated (N=747)	34%
Mothers with arrest history (N=742)	20%
Mothers with financial difficulties (N=745)	72%
Households receiving TANF (N=769)	13%
Mothers receiving food stamps (N=769)	22%

Table 12. Mothers' Pregnancy & Birth Information, 2009	
Mother smoked cigarettes during pregnancy (N=588)	11%
Mother drank alcohol during pregnancy (N=580)	3%
Mother used illicit drugs during pregnancy (N=583)	5%
Child born with serious medical problems (N=619)	9%
Born Prematurely (before 37 weeks gestation)	10%
Born Low Birth weight (under 5 lbs 8 oz) (N=603)	9%
Child has a Pediatrician	
Yes	98%
No	1%
Unknown	1%

Education and Employment Rates at Program Entry
Statewide Data, 2009

Table 13. Mothers' Life Course, Statewide, 2009	19 and younger	20 and older
Mother Education	(N=281)	(N=339)
Eighth grade or less	4%	6%
More than 8th grade, < high school	63%	17%
High school degree or GED	23%	30%
Some vocational training or college	9%	37%
College degree or graduate work	0.3%	10%
Mother Enrolled in School	(N=279)	(N=344)
Yes	48%	12%
Employment Status	(N=281)	(N=344)
Mother not employed	83%	68%
Mother employed	17%	32%
Full-time	5%	17%
Part-time job or occasional work	13%	12%
Employed Prior to Pregnancy	(N=266)	(N=329)
Yes	41%	78%

Table 14. Fathers' Life Course, Statewide, 2009	19 and younger	20 and older
Father Education	(N=76)	(N=234)
Eighth grade or less	4%	12%
More than 8th grade, < than HS	63%	20%
High school degree or GED	25%	43%
Some vocational training or college	8%	18%
College degree or graduate work	0%	7%
Father Enrolled in School	(N=81)	(N=269)
Yes	47%	8%
Employment Status	(N=79)	(N=268)
Father not employed	66%	32%
Father employed	34%	68%
Full-time	11%	45%
Part-time job, occasional work, or working more than one job	22%	19%
Fathers With an Arrest History	(N=66)	(N=234)
Yes	53%	37%
Fathers Currently Incarcerated	(N=56)	(N=225)
Yes	7%	6%

Mothers' Life Course Information

Mothers' education and employment data are presented in Table 13, separating mothers who were 19 years or younger when they had their child from those who were 20 and older. These data were separated due to different expectations in employment and education based on mother's age.

- 67% of the younger cohort of mothers had less than a high school education at program entry; however, 48% were still enrolled in some type of school. In comparison, 23% of the older cohort had not completed high school and 12% were enrolled in school.
- Forty-one percent of the younger cohort of mothers were employed prior to pregnancy; only 17% remained employed when they entered NFN. For the older cohort, 78% were employed prior to pregnancy and only 32% of these older mothers were employed at program entry.

Fathers' Life Course Information

Our data on fathers are limited, primarily because home visitors mostly rely on mothers to provide information on fathers (if the father is not part of the home visits). As with mothers' data, we analyzed employment and educational data by father's age at baby's birth (see Table 14).

- For the younger cohort, 67% of the fathers had less than a high school education, however, 47% were still enrolled in school. For the older cohort, 32% had less than a high school education and 8% were enrolled in school; 25% of the older cohort of fathers had some post-secondary education (either vocational training or some college).
- Thirty-four percent of the younger cohort and 68% of the older cohort of fathers were employed.
- It is unclear why, but the younger fathers have higher arrest rates compared to older fathers; 53% of the younger cohort and 37% of the older cohort had an arrest history, and 7% and 6%, respectively, were incarcerated at the time of program entry.

Home Visitation Participation, Statewide Data, 2009

Table 15. Program Participation Rates, 2005-2009

Frequency of Home Visits & Program Participation	2005 N=931	2006 N=1176	2007 N=1342	2008 N=1716	2009 N=1997
Average # of attempted home visits	2.0	2.7	2.9	2.9	2.8
Average # of completed home visits	1.4	2.0	2.1	2.1	2.1
Average # of office/out of home visits	0.2	0.2	0.2	0.1	0.1
Average # of NFN social events attended	0.2	0.1	0.1	0.1	0.1
Total # of visits completed	1.8	2.3	2.4	2.3	2.3

Fig 5. Six month, 1 year, and 2 year Program Retention Rates by Year of Program Entrance
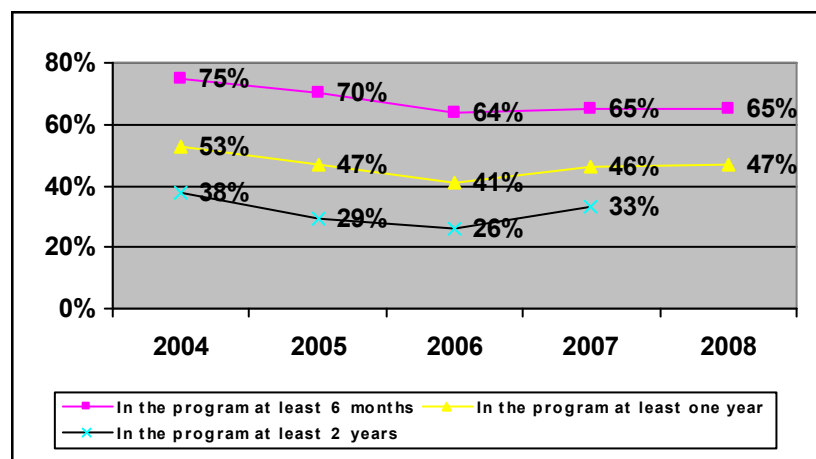
Table 16. Reasons Families Leave the Program, 2005-2009

Reasons Families Left NFN Home Visiting	2005 N=343	2006 N=541	2007 N=560	2008 N=608	2009 N=846
Family moved out of service area	16%	20%	15%	16%	17%
Unable to locate mother	23%	28%	32%	36%	37%
Discharged, family was noncompliant	6%	1%	0%	0%	0%
Family decided to discontinue services	16%	16%	15%	16%	15%
Mother is working or in school full-time, no time for home visits	11%	14%	15%	13%	13%
Goals were met/family graduated	12%	3%	9%	8%	7%
Baby removed from home by DCF	4%	3%	3%	2%	2%
Discharged, family was not appropriate for the program	1%	1%	1%	1%	1%
Other family member did not approve of services	1%	1%	1%	<1%	1%
Home visitor left the program	0%	1%	1%	2%	3%
Other	6%	7%	8%	4%	5%

Program Participation Rates

Program services consist mostly of home visits and, on average, families receive two visits per month out of an attempted 3, as shown in Table 15. Rates of program participation in 2009 are similar to the previous 4 years.

Program Retention Rates

Six month, one year, and two year retention rates are shown in Figure 5 by year families entered the program. For mothers who entered the program in 2008, 65% remained in the program for at least 6 months and 47% remained in the program for at least 1 year, a slight increase from the 2006 cohort and similar to the 2005 and 2007 cohorts. Going back to 2007 for the 2 year retention rate, 33% of mothers entering the program participated for 2 years, an increase from the 2006 cohort. Of all the families who have had the opportunity to be in the program for 5 years, the average length of stay was 22 months.

Reasons Families Leave the Program

As shown in Table 16, more than half of families (54%) that left the program in 2009 left because the family moved without informing program staff (and were unable to be located) or they informed staff they were moving out of the service area. Families also left the program when the mothers were not available for services (working or in school), the family otherwise made a decision to leave the program (for unspecified reasons), or because the family met their own goals (such as going back to school or work, or feeling more confident and supported as a parent).

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Change in Utilization of Community Resources
Statewide Parent Outcomes, 2009

Community Life Skills Scale

- The Community Life Skills (CLS) scale is a self-report standardized instrument that measures someone's knowledge and use of resources in his/her community. The CLS produces an overall score as well as scores on six subscales: Transportation, Budgeting, Support Services, Support Involvement, Interests/Hobbies, and Regularity/Organization/Routines. The overall (Total) score on the CLS ranges from 0-33, with higher scores indicating more effective use of community resources.
- As shown in Table 17, data on the Total CLS scale and each of the subscales were analyzed separately (in a repeated measures analysis of variance) for mothers who participated 1 year (N= 292) and 2 years (N=136).

- Analyses for both one and two year participants showed statistically significant changes on the Total scale and on the majority of the subscales (all subscales were significant at two years).
- Improvement on the support services scale, where we see the greatest effect size at 1 year, indicates mothers are more connected to supports such as family members and neighbors.
- Significant improvement in community skills was also documented in the areas of transportation, budgeting, accessing support services, involving support from others, and regularly organized routines. These data indicate families are becoming more knowledgeable on available resources and how to access them.

Table 17. Change in Mean Scores on the Community Life Skills Scale for 1 & 2 Year Participants			
Community Life Skills Scale (N=292) 2008-2009	**Program Entry**	**1 Year**	
Total	23.5	25.6***	
Transportation	3.2	3.5***	
Budgeting	3.1	3.6***	
Support services	4.1	4.5***	
Support/Involvement	4.1	4.7***	
Interests/Hobbies	2.6	2.7	
Regularity/Organization/Routines	6.4	6.7**	
Community Life Skills Scale (N=136) 2007-2009	**Program Entry**	**1 Year**	**2 Year**
Total	24.6	26.0	27.1***
Transportation	3.2	3.4	3.6**
Budgeting	3.3	3.6	3.7**
Support services	4.2	4.5	4.6***
Support/Involvement	4.5	4.9	5.3***
Interests/Hobbies	2.7	3.0	2.9*
Regularity/Organization/Routines	6.5	6.8	6.9**
*p<.05 **p<.01 ***p<.001			

Change in Mothers' Life Course Outcomes
Statewide Data, 2009

Home visitors complete a questionnaire annually for each family active in the program on life course outcomes. As shown in Table 18, change in each of the life course outcomes was analyzed separately (in a repeated measures analysis of variance) for mothers who completed the questionnaire each year they participated for one year (2008-2009) and two years (2007-2009). (Note: Different N size is due to missing/unknown data.)

Education, Employment, Independent Living
- Mothers who received one and two years of NFN services, made significant gains in employment, education, and independent living. After two years, 58% of mothers had completed at least a high school education, 39% were employed, and 49% were living inde-

pendently of family.

Social Isolation
- Home visitors' assessment of mothers' social isolation significantly decreased significantly for both 1 year and 2 year participants.

Financial Difficulties
- Rates of mothers who experienced financial difficulties increased significantly after two years.
- Use of government assistance (TANF, Food Stamps, and WIC) increased significantly for 1 year participants but only Food Stamp usage continued to rise in the second year.
- Data indicate that although mothers are receiving more education and are better employed, they continue to struggle financially.

Table 18. Change in Mothers' Life Course Outcomes for 1 & 2 Year Participants, Statewide Data				
Mothers' Living Circumstances: 2008-2009	**N**	**Entry**	**1 Year**	
Mothers with at least a high school education	269	54%	60%***	
Mothers employed	277	24%	39%***	
Mothers employed full-time	277	10%	19%***	
Mothers enrolled in school	278	27%	25%	
Mothers experiencing financial difficulties	267	67%	69%	
Mothers socially isolated	263	37%	25%***	
Mothers living independently of family	277	26%	36%***	
Mothers receiving TANF	278	9%	14%*	
Mothers receiving Food Stamps	269	20%	28%**	
Mothers receiving WIC	269	78%	88%**	
Mothers' Living Circumstances: 2007-2009	**N**	**Entry**	**1 Yr**	**2 Yr**
Mothers with at least a high school education	118	47%	52%	58%**
Mothers employed	128	20%	39%	39%***
Mothers employed full-time	128	13%	13%	9%
Mothers enrolled in school	129	25%	26%	24%
Mothers experiencing financial difficulties	122	66%	75%	76%*
Mothers socially isolated	122	37%	26%	18%***
Mothers living independently of family	105	35%	46%	49%*
Mothers receiving TANF	118	11%	18%	18%
Mothers receiving Food Stamps	116	19%	33%	39%***
Mothers receiving WIC	116	87%	85%	86%
*p<.05 **p<.01 ***p<.001				

Change in Fathers' Life Course Outcomes
Statewide Data, 2009

Father Life Outcomes

As already noted, our data on fathers are limited primarily because information is often collected from the mothers if fathers are not part of the home visits. Past research has shown that mothers tend to rate father involvement lower than fathers do (see Life Stories Report, 2004). For this reason, these data should be interpreted with caution.

- Separate analyses were conducted for families receiving 1 year and 2 years of service by the end of 2009.

Education and Employment

- For families that participated for one year and two years as of the end of 2009, there were no significant improvements in fathers' rates of education.
- After two years, there was a significant increase in the percentage of fathers employed

full-time, although the overall employment rate did not increase significantly.

Financial Difficulties

- Rates of fathers who experience financial difficulties increased after one and two years, although not significantly.

Social Isolation

- Fathers' isolation remained low for both 1 and 2 year participants, and showed no significant change.

Involvement with Children

- Fathers' involvement with their children decreased significantly after two years, starting with 77% at least somewhat involved at program entry and decreasing to 69% two years later.

Table 19. Change in Fathers' Life Course Outcomes for 1 & 2 Year Participants, Statewide Data				
Fathers' Living Circumstances, 2008-2009	**N**	**Entry**	**1 Year**	
Fathers with at least a high school education	182	60%	62%	
Fathers employed	214	69%	68%	
Fathers employed full-time	214	50%	57%	
Fathers enrolled in school	213	15%	8%**	
Fathers with financial difficulties	152	61%	66%	
Fathers socially isolated	140	12%	9%	
Fathers at least somewhat involved with their children	166	73%	73%	
Fathers' Living Circumstances, 2007-2009	**N**	**Entry**	**1 Year**	**2 Year**
Fathers with at least a high school education	77	60%	65%	66%
Fathers employed	89	71%	80%	79%
Fathers employed full-time	89	21%	46%	46%***
Fathers enrolled in school	90	11%	9%	4%
Fathers with financial difficulties	64	64%	70%	75%
Fathers socially isolated	61	3%	7%	10%
Fathers at least somewhat involved with their children	84	77%	71%	69%*
*p<.05 **p<.01 ***p<.001				

Change in Mothers' Attitude & Potential for Abuse Statewide Data, 2009

Child Abuse Potential Rigidity Subscale
The Child Abuse Potential Inventory (CAPI) is a self-report standardized instrument designed to measure someone's potential to abuse or neglect a child. We use the Rigidity Subscale of the CAPI (CAPI-R) to assess changes in rigid parenting attitudes over time. A significant decrease on the Rigidity subscale reveals that a mother is less likely to feel that her children should *always* be neat, orderly, and obedient. Mothers who have less rigid expectations of their children are less likely to treat their children forcefully.

The average score for a normative population on the CAPI-R is 10.1 with a standard deviation of 12.5. The cut off score on the Capi-R is 30, with 5% of the general population scoring at or above this score.

- The CAPI-R data show us that NFN mothers come into the program with scores indicative of high risk. In 2009, NFN mothers came into the program with an average score of 24.8, a little more than one standard deviation above normative mean. Further, while only 5% of the general population scores at or above the cut-off of 30, 39% of the NFN population did so at program entry.

- As shown in Table 20, mothers who participated in the program for one and two years made statistically significant improvements on the Rigidity subscale, indicating a reduction in their risk for maltreating their children.

Table 20. Change in Means Scores on the Child Abuse Potential Inventory Rigidity Subscale for 1 and 2 Year participants, Statewide Data, 2009

CAPI Rigidity Scores (N=292) 2008-2009	Entry	1 Year	
Rigidity	24.8	21.0***	
CAPI Rigidity Scores (N=138) 2007-2009	Entry	1 Year	2 Year
Rigidity	23.7	20.7	19.5**
*p<.05 **p<.01			

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Statewide NFN Evaluation, Summary of Key Findings

Screening and Enrollment
- The total number of families screened by the REID decreased from 8,499 in 2008 to 7,241 in 2009. This makes sense programmatically, as many sites were close to or at capacity.
- Of the 4,631 low risk families screened, 67% were offered Nurturing Connections support and referral services and 56% of those offered accepted services (N=1743).
- Home visiting enrollment data indicate that slightly more than one-half of high-risk families that were offered home visiting initially accept services. Of those that accept, 66% then went on to initiate home visiting services (N=747).
- Program staff documented several barriers to families accessing home visiting services, including the program reaching full capacity, program staff not being able to have face to face contact with families, families feeling they don't have time for home visiting, families living outside of the NFN catchment area, and language barriers.

Risk Profiles
- Data from the Kempe Family Stress Inventory indicate that 42% of NFN mothers experienced severe maltreatment as children. Additional data from the Kempe also show a portion of NFN mothers are dealing with significant stressors in their lives, such as financial strains, relationship issues, poor mental health, substance dependence, and domestic violence.
- Data gathered by the home visitors show that the majority (88%) of mothers are single, never married when they enter the program. Further, 45% are teenage mothers, 72% experience financial difficulties, 34% are socially isolated, and 20% have an arrest history.

Participation and Retention Rates
- Similar to previous years, families received an average of two home visits per month out of an attempted three tries in 2009.
- In 2009, there was an increase in the 2 year retention rate, with one-third of families staying in the program at least 2 years. Six month and one year retention rates were similar to 2008.

Program Outcomes
- Mothers made significant improvement on the Community Life Skills scale, indicating they were more connected to others in the community and knew how to better access resources.
- Similarly, NFN mothers made statistically significant gains in life course outcomes during the course of their participation in the program. After one and two years, mothers were more likely to have graduated from high school and be employed. Further, mothers were more likely to live independently of other family members.
- Mothers participating in the program for one and two years significantly reduced their rigid parenting attitudes, as measured by the Child Abuse Potential Inventory—Rigidity Subscale.

Section 3: NFN Urban Focus, 2009

In 2005, Hartford was targeted as the first city in Connecticut to "go to scale"- that is, to screen all first-time mothers for home visitation services in the city. Accordingly, the NFN home visitation program was expanded from two to ten program sites within Hartford. Six of these sites are also run by Neighborhood Family Centers funded by the Hartford Foundation for Public Giving. At the end of 2007, New Haven was the second city to go to scale, from three to eight program sites (also see Table 1). Taking the program to scale in urban communities is an attempt to target parenting practices among vulnerable families who often reside in resource-deprived neighborhoods.

In the following sections we will report on enrollment, descriptive, and outcome data for families participating in home visitation within the Hartford and New Haven NFN sites. We also compare urban data with statewide data on a variety of measures. This is done to highlight any differences in demographics that may explain differences in family outcomes.

Figure 6. Enhanced Program Services in Hartford and New Haven
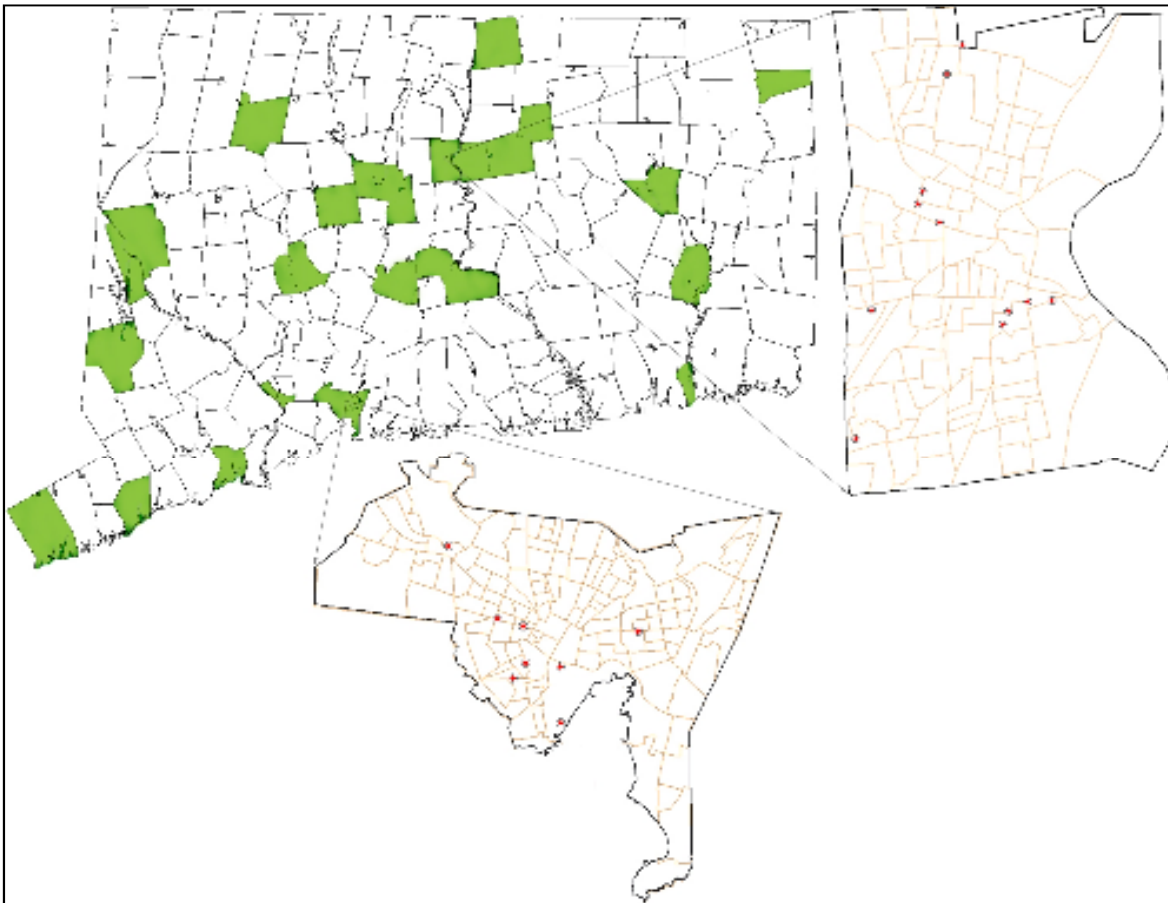
High Risk Families and Enrollment in Home Visitation

In this section, we provide enrollment data for those who screened at low-risk (and participated in Nurturing Connections) and those who screened at high risk (and participated in home visiting services) at the Hartford sites in 2009.

Screening

As shown in Table 21, there were a total of 2,063 screens completed at the Hartford sites in 2009, which represents 28% of all screens completed statewide. In Hartford, 1,401 families screened at low risk; 19% (N=265) were offered Nurturing Connections phone support and referral services, and of those offered, 55% (N=146) accepted. The rate of offering Nurturing Connections services in Hartford is substantially lower than statewide, 19% vs. 67% respectively. This may indicate that the Hart-

ford sites are screening beyond their capacity. A closer look at these data indicate that in 57% of the cases where Nurturing Connections services were not offered, the program was at capacity. In an additional 21% cases, the family lived out of the catchment area.

As shown in Table 22, of the 2,063 screens completed in Hartford in 2009, 662 (32%) were identified as high-risk. Of these high risk families, 68% were offered home visiting services, and of those offered, 40% (N=183) accepted and initiated services. While these data are very similar to the 2008 Hartford data, the rate of initiating home visiting is higher in Hartford than statewide, 40% vs. 35% respectively.

Table 21. Screening in Hartford, 2009	
Total # of screens	2,063
# Low Risk	1,401
Offered Nurturing Connections	265 (19%)
Accepted Nurturing Connections	146 (55%)
# High Risk	662
Offered home visiting	452 (68%)
Initiated services	183 (40%)

Table 22. Disposition of Families Identified as High Risk, Hartford Data, 2005-2009					
Families Identified as High Risk	**2005 (N=526)**	**2006 (N=1164)**	**2007 (N=1796)**	**2008 (N=2163)**	**2009 (N=2063)**
# of Positive Screens	300	548	564	714	662
Offered Kempe (2nd screen)	295 (98%)	505 (92%)	——	———	———
Offered HV (no 2nd screen)	———	———	412 (73%)	495 (69%)	452 (68%)
Initiated services	155 (53%)	221 (44%)	194 (47%)	193 (39%)	183 (40%)

Risk Profiles: Hartford Mothers' Kempe Scores, 2009

2009 Hartford Mothers' Kempe Scores on Individual Items

The Kempe Family Stress Inventory (Kempe) is scored across 10 items, with each item scored either 0 (no/low risk), 5 (moderate risk), or 10 (severe risk), to indicate presence and severity of past and current stressors. Each of these items, however, includes a larger set of criteria from which judgments are made, and these criteria provide a much better description of stress. As part of our enhanced research design in Hartford, we report on these data for families who scored in the severe range focusing on items with the highest rates of severe stress:

- Childhood History of Abuse and Neglect had the highest percentage of mothers (42%) who scored in the severe range. In addition, 40% of mothers scored in the severe range on the Multiple Stresses subscale.
- *Childhood History of Abuse/Neglect:* There were 75 mothers who scored in the severe range on this subscale. Of these mothers, 22 (31%) experienced severe beatings as a child, 34 (49%) were raised by more than two families, 29 (39%) were removed from their home

or were abandoned, and 24 (35%) were raised in a family with at least one alcoholic or drug addicted parent.

- *Multiple Stresses:* Sixty-six mothers scored in the severe range on this subscale. Of those mothers, 47 (75%) reported financial concerns as a source of major stress, 40 (64%) viewed their living situation as stressful, and 25 (38%) reported constant conflict in their relationship.
- Other Kempe subscales had smaller percentages of mother scoring in the severe range, but had a substantial percentage scoring in the moderate range. These subscales include Low Self-esteem/ Social Isolation//Depression, and Child Unwanted/Poor Bonding.

Families at Acute Risk

As described on page 12, according to NFN policy, an acute family is one that is experiencing an unaddressed mental health problem, untreated substance abuse, or an episode of domestic violence. In Hartford in 2009, 5% of mothers were classified as acute, which is greater than the 3% reported statewide. Further, in 2009, 9% of all Hartford mothers were documented as acute at some point during the year. This is also higher than the 6% reported statewide.

Table 23. Hartford Mothers' Kempe Scores, 2009	0	5	10
1. Childhood History of Abuse/Neglect (N=167)	34%	25%	42%
2. History of Crime, Substance Abuse, Mental Illness (N=167)	52%	32%	16%
3. CPS History (N=167)	95%	2%	3%
4. Low Self-esteem/ Social Isolation/ Depression (N=167)	21%	64%	16%
5. Multiple Stresses (N=167)	15%	46%	40%
6. Potential for Violence (N=165)	78%	7%	16%
7. Unrealistic Expectation of Child (N=167)	65%	31%	4%
8. Harsh Punishment (N=167)	86%	13%	1%
9. Negative Perception of Child (N=154)	94%	7%	0%
10. Child Unwanted/ Poor Bonding (N=166)	15%	79%	6%

Home Visitation Families at Program Entry
Hartford Data, 2009

Health Related Risk Factors

Health data provided in Table 24 indicate that:

- 6% of NFN children were born with serious medical problems, 10% were born premature and 11% with low birth weight.
- Rate of premature births in Hartford in 2009 (10%) is comparable to the NFN state-wide rate (10%), and the state rate of 10.5%.
- The rate of children born with low birth weight, however, is higher than the state NFN rate of 9%, and national

Table 24. Pregnancy & Birth Information, Hartford Data, 2007-2009

Health Related Risk Factors	2007 N=127	2008 N=127	2009 N=109
Mother smoked cigarettes during pregnancy	4%	9%	4%
Mother drank alcohol during pregnancy	0%	5%	2%
Mother used illicit drugs during pregnancy	2%	6%	3%
Child born with serious medical problems	12%	11%	6%
Premature Birth (before 37 weeks gestation)	10%	4%	10%
Born Low Birth Weight (under 5 lbs 8 oz)	11%	14%	11%
Child has a Pediatrician			
Yes	97%	99%	99%
No	1%	0%	1%
Unknown	2%	1%	0%

rate of 8.1%. However, the 11% rate is equivalent to the Hartford city-wide rate of 11.6% (CT Vital Statistics 2008).

Table 25. Household Information, Hartford Data, 2009

	2009
Prenatal Screens (N=195)	47%
Mother's Marital Status (N=170)	
Single, never married	92%
Married	8%
Divorced, separated, widow	1%
Mother's Race/Ethnicity (N=170)	
White	2%
Black	25%
Hispanic	63%
Other (includes multi-racial)	9%
Mother age at Baby's Birth (N=119)	
Under 16 years	3%
16-19 years	49%
20-22 years	27%
23-25 years	12%
26 years and older	10%
Median Age	20 yrs
Maternal Grandmother Living in the Household (N=171)	45%
Father Living in the House-hold (N=171)	30%
Father's Involvement W/ Child (N=82)	
Very involved	67%
Somewhat involved	10%
Sees child occasionally	6%
Very rarely involved	2%
Does not see baby at all	15%

Family and Household Data

Demographic profiles of Hartford mothers were similar to profiles of mothers statewide with the exception that all but 2% were nonwhite, with 63% Hispanic and 25% Black.

- 47% of Hartford mothers were screened prenatally, compared to 43% statewide.
- 92% of Hartford NFN mothers were single/never married (88% statewide)
- Median age at child's birth was 20 years.
- Slightly more participants were living with their mothers in Hartford (45% vs. 40% statewide).
- Fathers were less likely to be living in Hartford NFN households (30% vs. 41% statewide).
- 77% of Hartford fathers were at least somewhat involved in their child's life at program entry.

Financial and Social Risk Factors

- As shown in Table 26, home visitors considered 73% of mothers to have financial difficulties at the time of program entry.
- Home visitors perceived 22% of Hartford mothers to be socially isolated, compared with 34% statewide.
- Twenty-two percent of mothers had an arrest history.
- Fifteen percent of households were receiving TANF.
- More mothers were receiving Food Stamps in Hartford (27%) compared to statewide (22%).

Table 26. Hartford Mothers' Social Isolation, Arrest Histories & Financial Difficulties, 2009

	2008
Socially isolated (N=169)	22%
Arrest history (N=166)	22%
Financial difficulties (N=165)	73%
Receiving TANF (N=169)	15%
Receiving Food Stamps (N=169)	27%

Education and Employment Rates at Program Entry
Hartford Data, 2009

Hartford NFN 2009:
Mothers' Life Course Information

Mothers' education and employment data are presented in Table 27, separating mothers who were 19 years or younger when they had their child from those who were 20 and older. These data were separated due to different expectations of employment and education based on mother's age.

- Seventy percent of the younger cohort of mothers had less than a high school education at program entry (compared to 84% in 2008). Forty-eight percent of young mothers were enrolled in school, the same rate as statewide. In comparison to the statewide population, the older cohort had slightly less education: 28% had less than a high school degree versus 23% statewide; 35% had some post secondary education versus 47% among the statewide population.

- Rates of employment for Hartford mothers (10% for the young cohort and 28% for the older cohort) were slightly lower than employment rates statewide (17% for the younger cohort and 32% for the older cohort).

Hartford NFN 2009:
Fathers' Life Course Information

We also analyzed father's employment and educational data by father's age at baby's birth. These data should be interpreted with caution; home visitors often rely on mothers to provide information. Also, analyses are based on a small sample size and may not be representative of all the fathers.

- For the younger cohort, 63% (N=12) of the fathers had less than a high school education and 35% (N=7) were enrolled in school; 32% (N=14) of the older cohort had less than a high school education and 23% (N=10) had at least some post secondary education. These data are comparable to the statewide fathers.

- Seventy-two percent (N=13) of the younger group and 53% (N=24) of the older Hartford cohorts were unemployed, which is a decrease in employment rates compared to 2008 (data not shown here).

- None of the younger cohort and 8% (N=3) of the older cohort were incarcerated in comparison to 7% and 6% statewide.

Table 27.
Mothers' Life Course, Hartford Data, 2009

Mother Life Course Indicators	19 and younger	20 and older
Education	(N=60)	(N=58)
Eighth grade or less	2%	9%
More than 8th grade, < high school	68%	19%
High school degree or GED	18%	38%
Some vocational training/college	12%	26%
College degree or graduate work	0%	9%
Enrolled in School	(N=61)	(N=58)
Yes	48%	3%
Employment Status	(N=60)	(N=58)
Mother not employed	90%	72%
Mother employed	10%	28%
Full-time	1%	17%
Part-time job or occasional work	9%	11%
Employed Prior to Pregnancy	(N=56)	(N=56)
Yes	32%	71%

Table 28.
Fathers' Life Course, Hartford Data, 2009

Father Life Course Indicators	19 and younger	20 and older
Education	(N=19)	(N=44)
Eighth grade or less	5%	7%
More than 8th grade, < high school	58%	25%
High school degree or GED	32%	45%
Some vocational training/college	5%	23%
College degree or graduate work	0%	0%
Enrolled in School	(N=20)	(N=49)
Yes	35%	8%
Employment Status	(N=18)	(N=45)
Father not employed	72%	53%
Father employed	28%	47%
Full-time	22%	31%
Part-time job, occasional work, Or working more than one job	6%	16%
Fathers With an Arrest History	(N=14)	(N=46)
Yes	29%	54%
Currently Incarcerated	(N=15)	(N=37)
Yes	0%	8%

- Older Hartford fathers were also more likely to have an arrest history compared to younger Hartford fathers, 54% (N=25) compared to 29% (N=4), respectively.

Home Visitation Participation, Hartford Data, 2009

Table 29.
Hartford Program Participation, 2007 - 2009

Frequency of Home Visits	2007 N=420	2008 N=474	2009 N=510
Average # of attempted home visits	3.2	3.0	3.0
Average # of completed home visits	2.1	2.0	2.0
Average # of office/out of home visits	0.2	0.2	0.1
Average # of NFN social events attended	0.1	0.1	0.1
Total # of visits completed	2.4	2.3	2.2

Participation Rates
- Similar to the statewide population, families in Hartford, on average, receive 2 home visits per month (see Table 29) out of an average of 3 attempts. These data have remained consistent over the past three years.

Figure 7.
6 Month, 1 Year, and 2 Year Program Retention Rates: Hartford compared with Statewide Data

Program Retention Rates
- Six month, one year, and two year retention rates for Hartford and statewide are shown in Figure 7.
- At each time period, the Hartford families have higher retention rates compared to statewide, with 70% staying at least six months, 52% one year, and 36% two years. These differences, however, were not statistically significant.
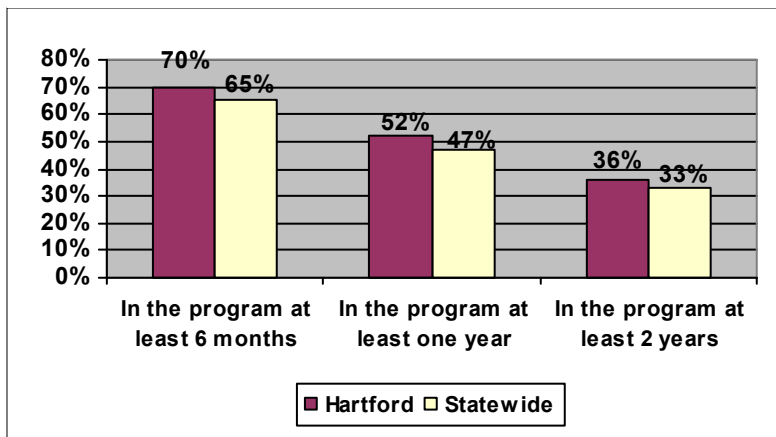
Table 30.
Reasons Hartford Families Leave Home Visiting, 2007 - 2009

Reasons Hartford Families Left the Program	2007 N=157	2008 N=147	2009 N=206
Family moved out of service area	15%	18%	20%
Unable to locate mother	37%	42%	41%
Discharged, family was noncompliant	0%	0%	0%
Family decided to discontinue services	21%	21%	12%
Mother is working or in school full-time, no time for home visits	21%	10%	11%
Goals were met/family graduated	0%	1%	2%
Baby removed from home by DCF	1%	3%	2%
Discharged, family was not appropriate for the program	1%	1%	1%
Other family member did not approve of services	2%	1%	1%
Home visitor left the program	0%	0%	2%
Other	4%	5%	8%

Reasons Families Leave the Program
- The foremost reason Hartford families stop participating in home visiting services is because they relocate without informing staff. This rate is higher compared to statewide, 41% vs. 37%, respectively. An additional 20% of families who discontinued services moved out of the service area (and informed staff). Twelve percent of families also decided to leave the program for "unspecified reasons".

Utilization of Community Resources
Hartford Parent Outcomes, 2009

Community Life Skills Scale (CLS): Hartford Outcomes
Data on the Total CLS scale, and each of the subscales were analyzed separately (in a repeated measure analysis of variance) for mothers active for 6 months (N=102), one year (N=62) and two years (N=29).

- Table 31 shows that statistically significant changes in total CLS scores were documented after one and two years of program participation. Significant change also oc-

curred on several subscales. Specifically, after one year there was significant change in the areas of transportation, budgeting, accessing support services, and community support/involvement. After two years, significant change was seen in the areas of accessing support services, and regularity of routines.

- Overall, these data indicate that parents are increasing their knowledge of community resources and how to access them.

Table 31. Change in Mean Scores on the Community Life Skills Scale 6 Month, 1 and 2 Year Participants, Hartford, 2009

Community Life Skills	Entry (N=102)	6 Months
Total	23.4	23.8
Transportation	3.2	3.4
Budgeting	3.0	2.9
Support services	4.1	4.3
Support/Involvement	3.9	4.1
Interests/Hobbies	2.7	2.7
Regularity/Organization/ Routines	6.5	6.5

Community Life Skills	Entry (N=62)	6 Months	1 Year
Total	23.1	23.7	25.3**
Transportation	3.3	3.5	3.7*
Budgeting	2.9	2.8	3.5**
Support services	4.1	4.2	4.4*
Support/Involvement	3.8	4.1	4.4*
Interests/Hobbies	2.6	2.7	2.6
Regularity/Organization/ Routines	6.4	6.4	6.8

Community Life Skills	Entry (N=29)	6 Months	1 Year	2 Year
Total	23.6	25.5	25.9	26.5**
Transportation	3.4	3.6	3.4	3.7
Budgeting	3.1	3.6	3.5	3.6
Support services	4.1	4.6	4.8	4.5**
Support/Involvement	4.3	4.3	4.5	5.1
Interests/Hobbies	2.5	2.8	3.0	2.7
Regularity/Organization/ Routines	6.3	6.6	6.7	6.9*

*p<.05   **p<.01   ***p<.001

Change in Symptoms of Depression and
Change in Parenting Attitudes, Hartford Outcomes, 2009

Center for the Epidemiological Studies Depression Scale (CES-D): Hartford Outcomes

The CES-D is used to assess the prevalence of depression in the Hartford sample. It is a widely used self-report scale intended for the general population. The instrument measures depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, sleep disturbances, and psychomotor retardation. Data for the CES-D were analyzed separately (in a repeated measures analysis of variance) for mothers active for six months (N=87) and one year (N=47), as of July 2009, when we discontinued the use of the instrument.

- These data showed a significant decrease in depressive symptoms after both six months and 1 year of program participation.
- These data not only show a decrease in self-reports of depression, but that scores actually decreased to below the cut-off point of 16 even when mothers were active in the program for only six months.

Table 32. Depression Scale Outcomes, 6 Month and 1 Year Participants

6 mo CES-D (N=87)	Program Entry	6 Months	
Depression score	17.2	14.6*	
1 yr CES-D (N=47)	**Program Entry**	**6 Months**	**1 Year**
Depression score	16.3	13.7	12.3*

Child Abuse Potential Inventory, Rigidity Subscale (CAPI-R): Hartford Outcomes

In Table 33, we present outcome data on the Child Abuse Potential Inventory Rigidity Scale (CAPI-R), a self-report scale that measures the rigidity of attitudes and beliefs about the appearance and behavior of children. The subscale is based on the theoretical assumption that rigid attitudes and beliefs lead to a greater probability of child abuse and neglect. Hartford parents complete the CAPI-R at program entry, six months, and then on annual anniversaries of their start date in the program. (Refer to page 19 for a more thorough description of the CAPI-R.)

- Data for the CAPI-R were analyzed separately (in a repeated measures analysis of variance) for mothers active for six months (N=108), one year (N=67), and two years (N=24) as of the end of the 2009 program year.
- Results show a significant decrease in the rigidity score at 6 months and 1 year.
- There was no significant decrease, however, for those mothers active for two years. This is the same 2007 cohort of families for whom there was no significant change after 6 months or 1 year, as documented in last year's report. There does not appear to be any differences in risk or demographics that would explain why the 2007 cohort is not showing significant reductions in rigid parenting attitudes.
- It should also be noted that the Rigidity scores in Hartford are noticeably higher compared to statewide. For the 1 year sample, the average score in Hartford was 27.2 versus 24.8, indicating that the Hartford mothers have more rigid expectations than their statewide counterparts.

Table 33. Child Abuse Potential Inventory - Rigidity Subscale, Hartford Outcome Data, 6 Month, 1 and 2 Year Data

6 mo CAPI (N=108) 2008-2009	Program Entry	6 Months		
Mean Rigidity Score	27.3	22.4***		
1 yr CAPI (N=67) 2008-2009	**Program Entry**	**6 Months**	**1 Year**	
Mean Rigidity Score	27.2	21.5	22.7**	
2 yr CAPI (N=24) 2007-2009	**Program Entry**	**6 Months**	**1 Year**	**2 Year**
Mean Rigidity Score	24.9	24.0	27.0	25.1

*p<.05   **p<.01   ***p<.001

2009 Hartford Data Analysis: Summary of Key Findings

Program Capacity and Enrollment of Families

- In 2009, there were 2,063 REID screens completed in Hartford and 1,401 (68%) of these first-time mothers were identified as at low risk for poor parenting. Nineteen percent of these mothers were offered Nurturing Connections phone support and referral services. These data indicate that the Hartford sites are screening far more low-risk mothers than they are equipped to enroll in Nurturing Connections services.
- Of the 2,063 screens completed in 2009, 662 (or 32%) of first-time mothers were identified as having an increased risk for poor parenting. Of these mothers, 452 were offered home visiting and 183 initiated services. The rate of initiating home visiting services in Hartford (40%) was higher than the statewide rate (35%).

Demographic and Risk Profiles

- Hartford mothers showed the most stress on the Kempe in past experiences of child mal-treatment and multiple stresses, with financial and relationship struggles also noted as sources of stress.
- The demographic profiles of Hartford mothers are fairly comparable to the profiles of state-wide mothers, with the exception of racial makeup (more Hispanic and Black mothers in Hartford and much less White mothers).

Hartford NFN Program Outcomes

- Hartford mothers showed significant change on our measure of use of community resources after one and two years.
- Further, mothers also showed a significant decrease in their rigid parenting beliefs after six months and 1 year.
- Symptoms of depression also decreased significantly after six months and 1 year.

High Risk Families and Enrollment in NFN
New Haven Data, 2009

In this section, we provide enrollment data for those who screened at low-risk (and participated in Nurturing Connections) and those who screened at high risk (and participated in home visiting services) at the New Haven sites. This is the New Haven network's second full year of program services, and thus many sites are close to or at program capacity.

Screening
- Table 34 shows that of the 1,490 screens in New Haven in 2009, 793 (53%) of these first time mothers screened at low risk for poor parenting. A total of 676 (85%) low risk families were offered Nurturing Connections services and of those offered, 195 (29%) accepted services. The rate of offering Nurturing Connections is higher in New Haven (85%) than the statewide rate (67%) and the Hartford rate (19%), however, the acceptance rate is substantially lower in New Haven (29%) compared to

statewide (56%) and Hartford (55%), and is also a decrease from the 2008 rate of 33% (data not shown).

- As shown in Table 35, of the 697 high-risk screens completed in New Haven, 634 (91%) were offered home visiting, (similar to the percentage offered in 2008) and of those offered, 205 (32%) accepted and initiated home visiting services. The rate of initiating services, however, is lower in 2009 than in 2008, 32% vs. 37%, respectively. Further, the rate of initiating home visiting in New Haven (32%) is lower than statewide (35%) and well as in Hartford (40%). When we look at the steps in between offering and initiating home visiting, we see that the percentage who initially agree to services is the same in New Haven as it is statewide (54% for both), however in New Haven, 62% of those who have agreed to services received the Kempe, as compared to 71% statewide.

Table 34. Screening in New Haven, 2009	
Total # of screens	1,490
# Low risk	793
Offered Nurturing Connections	676 (85%)
Accepted Nurturing Connections	195 (29%)
# high risk	697
Offered home visiting	634 (91%)
Initiated services	205 (32%)

Table 35. Disposition of Families Identified as High Risk, New Haven Data, 2008-2009		
Families Identified as High Risk	**2008 (N=1984)**	**2009 (N=1490)**
# of Positive Screens	814	697
Offered Home visiting	751 (92%)	634 (91%)
Initiated services	275 (37%)	205 (32%)

Risk Profiles: New Haven Mothers' Kempe Scores, 2009

2009 New Haven Mothers' Kempe Scores on Individual Items

The Kempe Family Stress Inventory (Kempe) is scored across 10 items, with each item scored either 0 (no/low risk), 5 (moderate risk), or 10 (severe risk), to indicate presence and severity of past and current stressors. Each of these items, however, includes a larger set of criteria from which judgments are made, and these criteria provide a much better description of stress. As part of our enhanced research design in New Haven, we report on these data for families who scored in the severe range focusing on items with the highest rates of severe stress:

- Similar to the Hartford Kempe data, the three subscales that had the greatest percentage of mothers scoring in the severe range in New Haven were Childhood History of Abuse and Neglect (38%), Multiple Stresses (41%), and History of Crime, Substance Abuse, and Mental Illness (26%).

- *Multiple Stresses:* There were 84 mothers who scored in the severe range on the Multiple Stresses subscale. Sixty-three (78%) of these mothers reported finances as a major stressor, and 55 (68%) described their living situation as stressful. Eighteen mothers (22%) were in constant conflict with their romantic partner, and 26 mothers (32%) moved frequently.

- *Childhood History of Abuse/Neglect:* There were a total of 76 mothers who scored in the severe range on the Childhood History of Abuse and Neglect subscale. Of these mothers,

34 (45%) were either removed from their house or abandoned as children. Thirty-two mothers (42%) experienced severe beatings, and 32 mothers (42%) were raised by more than two families.

- *History of Crime, Substance Abuse, and Mental Illness:* A greater percentage of mothers scored in the severe range on the History of Crime, Substance Abuse, and Mental Illness in New Haven (26%), than in Hartford (16%). There were a total of 53 New Haven mothers who scored in the severe range on this multi-construct subscale. Of these mothers, 26 (49%) reported a chronic pattern of psychiatric problems. Further, 20 mothers (38%) indicated they had used drugs at some point in their pregnancy (regardless of whether or not they were aware they were pregnant).

Families at Acute Risk

- New Haven families were less likely to be experiencing episodes of untreated mental health, domestic violence, or substance abuse when they entered the program as compared to families statewide and in Hartford. Less than 1% of New Haven mothers were had these acute issues at program entry compared to 3% statewide and 5% in Hartford. Further, data indicate that 5% of New Haven families were experiencing untreated mental health, domestic violence, or substance abuse issues at some point during the 2009 year, compared to 6% statewide and 9% in Hartford.

Table 36. New Haven Mothers' Kempe Scores, 2009			
New Haven Mothers' Kempe Scores 2009	**0**	**5**	**10**
1. Childhood History of Abuse/Neglect (N=200)	41%	21%	38%
2. History of Crime, Substance Abuse, Mental Illness (N=202)	61%	12%	26%
3. CPS History (N=199)	93%	3%	5%
4. Low Self-esteem/ Social Isolation/ Depression (N=204)	23%	57%	20%
5. Multiple Stresses (N=204)	24%	35%	41%
6. Potential for Violence (N=192)	78%	7%	15%
7. Unrealistic Expectation of Child (N=203)	45%	48%	7%
8. Harsh Punishment (N=199)	90%	3%	7%
9. Negative Perception of Child (N=190)	92%	7%	1%
10. Child Unwanted/ Poor Bonding (N=204)	10%	79%	10%

Home Visitation Families at Program Entry
New Haven Data, 2009

Health Related Risk Factors

Overall, there were improvements in health related factors in New Haven in 2009. Health data provided in Table 37 indicate that:

- Ten percent of New Haven NFN children were born with serious medical problems, a substantial decrease from last year's rate of 18%. (This piece of data should be interpreted with caution as it is document by home visitors and does not have clearly defined criteria.)
- Eight percent of children

Table 37. Pregnancy & Birth Information, New Haven Data, 2009

Health Related Risk Factors	2008 N=192	2009 N=167
Mother smoked cigarettes during pregnancy	8%	5%
Mother drank alcohol during pregnancy	2%	3%
Mother used illicit drugs during pregnancy	4%	5%
Child born with serious medical problems	18%	10%
Premature Birth (before 37 weeks gestation)	11%	8%
Born Low Birth Weight (under 5 lbs 8 oz)	12%	8%
Child has a Pediatrician		
Yes	97%	99%
No	1%	1%
Unknown	2%	1%

Table 38. Household Information, New Haven Data, 2009

Prenatal Screens (N=222)	56%
Mother's Marital Status (N=193)	
Single, never married	90%
Married	9%
Divorced, separated, widow	1%
Mother's Race/Ethnicity (N=194)	
White	12%
Black	30%
Hispanic	49%
Other (includes multi-racial)	8%
Mother age at Baby's Birth (N=162)	
Under 16 years	3%
16-19 years	34%
20-22 years	27%
23-25 years	17%
26 years and older	19%
Median Age	21 yrs
Maternal Grandmother Living in the Household (N=213)	42%
Father Living in the Household (N=214)	36%
Father's Involvement W/ Child (N=116)	
Very involved	58%
Somewhat involved	16%
Sees child occasionally	9%
Very rarely involved	2%
Does not see baby at all	16%

were born premature and 8% with low birth weight, also a decrease from 2008.

- Rate of premature births in New Haven (8%) is lower than CT rate of 10.5%. In addition, the rate of children born with low birth weight is lower than the citywide New Haven rate, 11.1% (CT DPH Vital Statistics 2008).

Family and Household Data

- Almost one-half of all participants in New Haven are Hispanic, another 30% are Black, and 12% are White.
- Fifty-six percent of home visiting mothers were screened prenatally, which is higher than both the statewide and Hartford samples, 43% and 47%, respectively.
- Forty-two percent of participants were living with their mothers, compared to 40% statewide.
- Thirty-six percent of fathers were residing in the New Haven households, which is lower than the statewide rate of 41%.
- Rates of father involvement

were comparable to statewide (74% vs. 76% at least somewhat involved).

Financial and Social Risk Factors

- As shown in Table 39, home visitors considered 76% of mothers to have financial difficulties at the time of program entry (slightly higher than the 72% statewide).
- Home visitors perceived 38% of New Haven mothers to be socially isolated, slightly higher than the 34% statewide.
- 17% of New Haven mothers had an arrest history compared to 20% statewide and 22% in Hartford.

Table 39. New Haven Mothers' Social Isolation, Arrest Histories & Financial Difficulties, 2009

Socially isolated (N=181)	38%
Arrest history (N=181)	17%
Financial difficulties (N=178)	76%
Receiving TANF (N=194)	12%
Receiving Food Stamps (N=194)	18%

Education and Employment Rates at Program Entry
New Haven Data, 2009

New Haven NFN 2009:
Mothers' Life Course Information

Mothers' education and employment data are presented in Table 40, separating mothers who were 19 years or younger when they had their child from those who were 20 and older.

- Sixty-six percent of the younger cohort of mothers had less than a high school education at program entry (comparable to 67% state-wide); however, 40% were enrolled in school (a decrease from 53% in 2008– data not shown). In comparison with the statewide population, the older New Haven cohort had slightly lower levels of education overall: 42% had some post secondary education versus 48% among the statewide population. Rates of high school completion, however, were comparable.
- Rates of employment for New Haven mothers (22% of the young cohort and 35% of the older cohort) were slightly higher than the statewide population (17% of the younger cohort and 32% of the older cohort).

New Haven NFN 2009:
Fathers' Life Course Information

The data in Table 41 should be interpreted with caution; home visitors often rely on mothers to provide information. Also, analyses are based on a small sample size (~20 for the younger cohort and ~50 for the older cohort) and may not be representative of all the fathers.

- For the younger cohort, 61% (N=11) of the fathers had less than a high school education and 48% (N=10) were enrolled in school; 31% (N=14) of the older cohort had less than a high school education and 19% (N=7) had at least some post secondary education. These data are comparable to data on the statewide fathers.
- Slightly more New Haven fathers were employed (40% (N=8) of the younger cohort and 71% (N=42) of the older cohort) compared to statewide fathers (34% of the younger cohort and 68% of the older cohort).
- Sixty percent of younger fathers in New Haven had an arrest history (N=9) compared to younger statewide fathers (53%).
- One of the younger fathers and 5 of the older fathers were incarcerated at the time of program entry in New Haven.

Table 40. Mothers' Life Course, New Haven Data, 2009		
Mother Life Course Indicators	19 and younger	20 and older
Education	(N=60)	(N=101)
Eighth grade or less	8%	4%
More than 8th grade, < high school	58%	19%
High school degree or GED	25%	31%
Some vocational training/college	7%	42%
College degree or graduate work	2%	5%
Enrolled in School	(N=60)	(N=102)
Yes	40%	16%
Employment Status	(N=60)	(N=101)
Mother not employed	78%	65%
Mother employed	22%	35%
Full-time	10%	14%
Part-time job or occasional work	12%	21%
Employed Prior to Pregnancy	(N=57)	(N=94)
Yes	33%	84%

Table 41. Fathers' Life Course, New Haven Data, 2009		
Father Life Course Indicators	19 and younger	20 and older
Education	(N=18)	(N=46)
Eighth grade or less	11%	9%
More than 8th grade, < high school	50%	22%
High school degree or GED	28%	50%
Some vocational training/college	11%	15%
College degree or graduate work	0%	4%
Enrolled in School	(N=21)	(N=58)
Yes	48%	5%
Employment Status	(N=20)	(N=59)
Father not employed	60%	29%
Father employed	40%	71%
Full-time	15%	54%
Part-time job, occasional work, Or working more than one job	25%	17%
Fathers With an Arrest History	(N=15)	(N=46)
Yes	60%	35%
Currently Incarcerated	(N=10)	(N=48)
Yes	10%	10%

Home Visitation Participation, New Haven Data, 2009

Table 42.
New Haven Program Participation, 2007-2009

Frequency of Home Visits	Oct-Dec 2007 N=44	2008 N=423	2009 N=493
Average # of attempted home visits	2.6	2.7	2.7
Average # of completed home visits	2.0	1.9	2.0
Average # of office/out of home visits	0.2	0.2	0.1
Average # of NFN social events attended	0.1	0.2	0.1
Total # of visits completed	2.3	2.3	2.2

Figure 8.
6 Month and 1 Year Retention Rates
New Haven compared with Statewide Data

Participation Rates

- Similar to the statewide and Hartford populations, families in New Haven, on average, receive 2 visits per month (see Table 42) out of an average of 3 attempts. These data have remained consistent over the past 3 years.
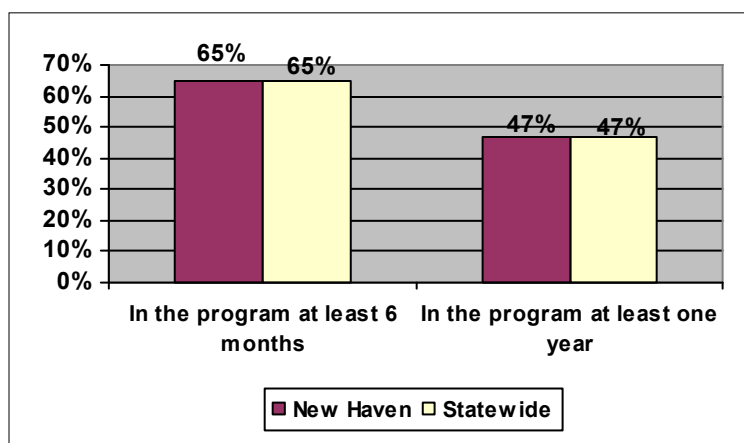
Program Retention Rates

- Six month and 1 year retention rates for New Haven families starting in 2008 were identical to state retention rates, with 65% active at least six months and 47% active at least 1 year (see Figure 8).

Reasons Families Leave the Program

- The foremost reason New Haven families stop participating in NFN services is because the families move without informing NFN staff. This rate is slightly higher in New Haven compared to statewide, 42% vs. 37%, respectively. Also, 14% of families who discontinued services moved out of the service area and did inform NFN staff. An additional 16% left the program because they were working or in school and did not have time for home visits. Thirteen percent of families left the program for unspecified reasons.

Table 43.
Reasons New Haven Families Leave Home Visiting, 2008-2009

Reasons Hartford Families Left the Program	2008 N=163	2009 N-243
Family moved out of service area	14%	14%
Unable to locate mother	37%	42%
Discharged, family was noncompliant	0%	0%
Family decided to discontinue services	15%	13%
Mother is working or in school full-time, no time for home visits	19%	16%
Goals were met/family graduated	0%	2%
Baby removed from home by DCF	1%	3%
Discharged, family was not appropriate for the program	1%	1%
Other family member did not approve of services	1%	<1%
Home visitor left the program	4%	3%
Other	6%	6%

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Utilization of Community Resources
New Haven Parent Outcomes, 2009

Community Life Skills Scale (CLS): New Haven Outcomes

Data on the Total CLS scale, and each of the subscales were analyzed (in a repeated measure analysis of variance) for mothers active for 6 months (N=127) and 1 year (N=76) as of the end of 2009.

- Table 44 shows that statistically significant changes in mean scores were documented on the Total CLS scale and the Transporta-

tion, Budgeting, Support Services, Support/ Involvement, and Regularity/Organization/ Routines subscales after both six months and one year. These data indicate that NFN participants were more knowledgeable about community resources and how to access them particularly around issues of finances, transportation, routines, and support networks.

Table 44. Change in Mean Scores on the Community Life Skills Scale, 6 Month and 1 Year Participants, New Haven, 2009			
Community Life Skills, 2008-009	**Entry (N=127)**	**6 Months**	
Total	23.3	24.9***	
Transportation	3.1	3.4**	
Budgeting	3.2	3.5**	
Support services	4.0	4.3*	
Support/Involvement	4.1	4.5**	
Interests/Hobbies	2.6	2.7	
Regularity/ Organization/ Routines	6.3	6.6*	
Community Life Skills, 2008-2009	**Entry (N=76)**	**6 Months**	**1 Year**
Total	23.0	24.8	25.6***
Transportation	3.1	3.4	3.5**
Budgeting	3.3	3.5	3.9***
Support services	3.9	4.3	4.4**
Support/Involvement	3.9	4.4	4.7**
Interests/Hobbies	2.6	2.7	2.6
Regularity/ Organization/ Routines	6.2	6.6	6.5*

Changes in Symptoms of Depression and Change in Parenting Attitudes, New Haven Outcomes, 2009

Center for the Epidemiological Studies Depression Scale (CES-D): New Haven Outcomes

As with Hartford participants, the CES-D is used to assess the prevalence of depression among New Haven NFN participants. It is a widely used self-report scale intended for the general population. The instrument measures depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, sleep disturbances, and psychomotor retardation. Data for the CES-D were analyzed for mothers who participated in the program for six months (N=104) and 1 year (N=52) as of July 2009 (when we discontinued use of the instrument). These data show no significant change in depressive symptoms over time. However, in an analysis of the 35 mothers who scored at or above the CES-D cutoff (16) at entry, there was a significant decrease from 25.0 at program entry to 19.0 after six months (although this was still above the cutoff point of 16).

Child Abuse Potential Inventory, Rigidity Subscale (CAPI-R): New Haven Outcome Data

In Table 45, we present outcome data on the Child Abuse Potential Inventory Rigidity Scale (CAPI-R), a self-report scale that measures attitudes and beliefs about the appearance and behavior of children. A significant decrease on the Rigidity subscale reveals that a mother is less likely to feel that her children should *always* be neat, orderly, and obedient. Mothers who have less rigid expectations of their children are less likely to treat their children forcefully.

The average score for a normative population on the CAPI-R is 10.1 with a standard deviation of 12.5. The cut off score on the CAPI-R is 30, with 5% of the general population scoring at or above this score.

- The average CAPI-R score at program entry in 2009 in New Haven mothers was 29, which is more than 1 standard deviation about the mean, and was also greater than entry means in Harford and statewide.
- At program entry, 46% of New Haven mothers scored at or above the cutoff score of 30. After six months, it dropped to 36%.
- Data for the CAPI-R were analyzed for mothers active for six months (N=125) and 1 year (N=75) as of the end of the 2009 program year. Results indicate a significant decrease in rigid parenting attitudes after one year of program participation, indicating a reduction in risk for maltreatment.

**Table 45. Child Abuse Potential Inventory -
Rigidity Subscale New Haven Outcome Data,
6 Month, and 1 Year Participants, 2009**

6 mo CAPI (N=125)	Program Entry	6 Months	
Mean Rigidity Score	26.7	24.7	
1 yr CAPI (N=75)	**Program Entry**	**6 Months**	**1 Year**
Mean Rigidity Score	26.8	24.0	21.9*

2009 New Haven Data Analysis: Summary of Key Findings

Program Capacity and Enrollment of Families
- In 2009, there were 1,490 families screened in New Haven. Of those, 793 (53%) were identified as at low risk for poor parenting. While 85% of low-risk families were offered Nurturing Connections services, only 29% of those offered accepted, substantially less than statewide and in Hartford.
- In 2009, 697 (47%) of first-time mothers screened were identified at an increased risk for poor parenting. Of these 697 first-time mothers, 634 were offered home visiting and 205 initiated services. The rate of initiating services was lower in New Haven (32%) than statewide (35%) and in Hartford (40%).

Demographic and Risk Profiles
- New Haven families showed the most stress on the Childhood History of Abuse/Neglect, Multiple Stresses, and History of Crime, Substance Abuse, and Mental Illness subscales of the Kempe.
- The demographic profiles of New Haven mothers are comparable to the profiles of statewide mothers, with the exception of the racial makeup (higher proportion of Black and Hispanic mothers in New Haven).
- Fifty-six percent of home visiting mothers in New Haven were screened prenatally, which is higher than the 43% statewide and 47% in Hartford.

New Haven NFN Program Outcomes
- Six month outcome data show significant improvement in use of community resources, but not in rigid parenting beliefs or depressive symptoms.
- One year outcome data in New Haven indicate improvement in the areas of use of community resources and risk for child maltreatment, but not depressive symptoms.

Section 4: State Reports of Child Maltreatment 2008/2009

In this next section, we document substantiated and unsubstantiated reports of abuse and neglect for all families, statewide, who signed a release allowing us to search the Department of Children and Families (DCF) database. We provide an annualized rate of maltreatment as well as a description of substantiated reports of maltreatment during families' tenure in the home visitation program.

Rates of Maltreatment for the NFN Population, 2008/2009

Each year, program participants are asked to sign a release form that allows us to search the Department of Children and Families (DCF) database to determine whether or not they have been reported for maltreatment during their tenure in the home visitation program.

- This year, 809 families who participated in the program at any time between July 1, 2008 and June 30, 2009 signed the release, representing 44% percent of all families who were active during that time (N=1,851). This is a lower response rate than last year (66%) due to the use of a new release form which some participants were unable to sign before they left the program.
- These data include participants from all but one of the NFN sites.

Analysis of Families Included and Not Included in DCF Analysis

We analyzed demographic and risk data to determine if those who signed the release differed from those who did not. Results of this analysis are presented in Table 46.

Table 46. Comparison of Families Included and Excluded in Analyses of Abuse and Neglect Reports, Statewide Data, 2008/2009

Demographic and Risk Data	Signed DCF Release (N=809)	Did Not Sign DCF Release (N=1042)
CAPI Rigidity score	25.4	25.4
Mother's total Kempe score	31.0	31.0
Mother's age at baby's birth	22.3	21.4**
% Mothers with at least a high school degree	52%	51%
% Mothers employed	23%	23%
% Mothers nonwhite	80%	80%

- The two groups were comparable across all of the factors excluding mother's age at child's birth. Mothers who signed the DCF release were, on average, one year older than those who did not sign. Overall, these data give us confidence that the group who did sign the release is at a similar risk level to those that did not sign.

Rates of Abuse/Neglect

We analyzed this year's DCF data in two different ways.

- First, we assessed all families who were active in the program any time between July 1, 2008 and June 30, 2009 and who had a report during that time period, see Table 47. There were a total of 61 reports of maltreatment for 56 NFN participants (5 families had multiple reports) and of those, 13 reports were substantiated.
- Second, we assessed only those families who were active in the program for the entire year, July 1, 2008 to June 30, 2009 (annualized rate). The purpose of this analysis is to standardize the exposure that a family has to the NFN program and to calculate rates that could be compared to state and national rates.

Table 47. All Reports of Child Maltreatment by NFN Participants

DCF Data on NFN Families	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Total number of families that signed DCF release	410	664	614	1,075	807
# of families with DCF Report	45 (11.0%)	55 (8.3%)	53 (8.9%)	63 (5.9%)	56 (6.9%)
# of families with multiple DCF reports	7 (1.7%)	7 (1.1%)	14 (2.3%)	10 (0.9%)	5 (0.6%)
# of families with substantiated DCF report	12 (2.9%)	14 (2.1%)	17 (2.8%)	20 (1.9%)	13 (1.6%)
# of families with more than 1 substantiated DCF Reports	0 (0%)	0 (0%)	2 (0.3%)	1 (0.1%)	0 (0%)
Total number of reports	53	61	69	75	61
Total number of substantiated reports	12	14	19	20	13

# Annualized Rates of Maltreatment for the NFN Population, 2008/2009

Assessment of families reported for maltreatment who were active in the program for the entire year between 7/1/08 and 6/30/09

In our second analysis, we calculated an annualized rate of maltreatment with the 447 families who received services for the entire year. Of the 447 families included in the annual analysis, DCF reports were filed on 9 percent and substantiated for 2 percent, a slight increase from last year, but lower than 2 years ago (Table 48). Comparatively, NFN has a higher maltreatment rate than does the general population of CT (1.1% as of 2006) (CT Kids Count Data). However, the NFN population is a higher risk population compared to the general population. The NFN maltreatment rate compares favorably to the rates provided by other home visitation prevention programs across the country, which range from 1% to 8% (Nurturing Families Network 2007 Annual Outcome Evaluation Report, 2007) and serve similar populations of high risk families.

Table 48. Reports of Child Maltreatment for Families Active for the Entire Year					
DCF Data on NFN Families	**2004-2005**	**2005-2006**	**2006-2007**	**2007-2008**	**2008-2009**
# of families active the entire year	229	256	249	397	447
# of families with DCF report	35 (15.3%)	20 (7.8%)	31 (12.4%)	24 (6.0%)	38 (8.5%)
# of families with multiple DCF reports	6 (2.6%)	3 (1.2%)	11 (4.4%)	5 (1.3%)	4 (0.9%)
# of families with substantiated DCF report	7 (3.1%)	4 (1.6%)	11 (4.4%)	5 (1.3%)	9 (2.0%)
# of families with multiple substantiated DCF reports	0 (0%)	0 (0%)	1 (0.4%)	1 (0.3%)	0 (0%)
Total number of reports	43	23	45	30	42
Total number of substantiated reports	7	4	13	6	9

Figure 9 shows the annualized rate of maltreatment for the past nine years for the NFN population. As shown, the rates peaked in 2002-2003 and 2003-2004 (6%), then declined for the next two years before spiking to 4% in 2006-2007, and then decreasing over the past two years.

Figure 19. Annualized Rates of Maltreatment for the NFN Population 2000-2009

40
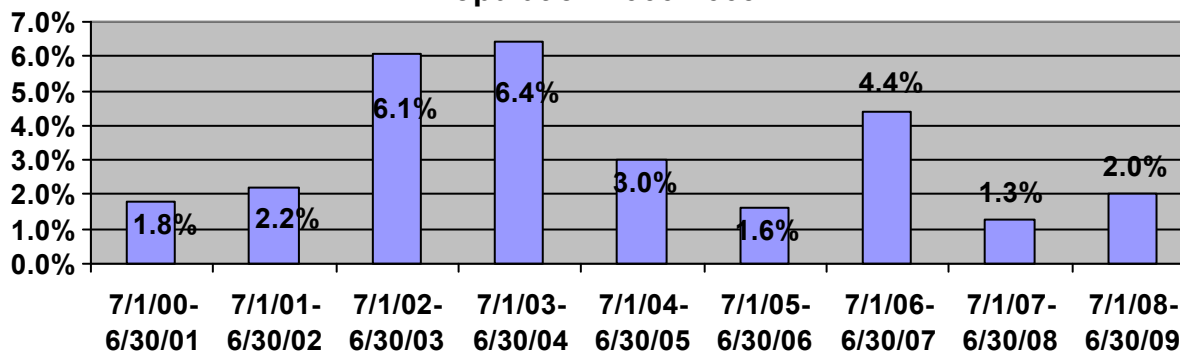
Type and Perpetrators of Maltreatment, 2008/2009

In this section, we present data on the 13 substantiated reports of maltreatment that occurred during the 2008-2009 year.

Perpetrators of Abuse

As presented in Table 49, NFN mothers were perpetrators in 8 of the 13 substantiated cases (in 4 cases they were the sole perpetrator, and the other 4 cases had mothers and additional perpetrators) . Further, fathers were involved in 8 of the 13 substantiated cases, which represents an increase in father involvement in substantiated reports. In the previous two years, fathers were involved in less than one-half of all substantiated reports, compared to 62% this year.

Families, on average, had been in the NFN program for 1 year, 6 months when a substantiated report was filed. This is also different from the 10 months, and 6 months in the past two years, respectively.

Two of the 13 reports were made by NFN home visitors.

Prevalence of Physical Neglect

As shown in Table 50, all but two of the substantiated reports of maltreatment involved physical neglect. According to the Connecticut Department of Children and

Table 49. Relationship of Perpetrator to Child	
Perpetrator of Maltreatment	**Substantiated Reports (N=13)**
Mother only	4
Mother and father	3
Father only	4
Mother and other family member	1
Father and other family member	1
Home Visitor Made Report to DCF	2
Average Length of Time in Program When Report Occurred	1 year, 6 months

Table 50. Types and Frequency of Child Maltreatment	
Type of Maltreatment	**Substantiated Reports Only (N=13)**
Physical Neglect	11
Emotional Neglect	0
Physical Abuse	1
Sexual Abuse	0
Medical Neglect	1
Moral Neglect	0
Emotional Abuse	0

Families, physical neglect is defined as "the failure to provide adequate shelter, food, clothing, or supervision which is appropriate to the climatic and environmental conditions. Physical neglect may also include leaving a child alone for an excessive amount of time given the child's age and cognitive abilities and holding the child responsible for the care of siblings or others beyond the child's ability." This

prevalence of physical neglect is similar to what we have seen in previous years.

One Case of Physical Abuse

There was one case of physical abuse in the 2008-2009 year. In this case, the father was left alone with the baby and when the mother returned, the baby's face was red and swollen. The family had been in the program less than two weeks when the incident occurred.

Section 5: Home Visitation for Fathers: Preliminary Results From a Pilot Project

In this section, we describe a pilot project that began in 2009 and is designed to provide intensive home visitation services to fathers in select NFN sites. Demographic and risk profiles of participating fathers are provided as well as rates of program participation.

Home Visitation for Fathers:
Demographic Profile of Fathers at Program Entry

Fathering Home Visiting:
While fathers have always been invited to participate in home visits, NFN home visiting services have typically been geared toward mothers. In October 2008, a Fatherhood Subcommittee was convened with the goal of redesigning traditional NFN home visiting services to be more father-friendly. Shortly after, a funding opportunity arose for a small group of sites to expand their services. On March 1, 2009, a home visiting pilot for fathers officially began in five NFN sites. Males were hired as home visitors and services were offered to fathers of then enrolled NFN children. Subsequently, services were also offered to fathers not attached to enrolled NFN children. The structure of home visits for fathers are comparable to standard NFN home visits: services are offered on a weekly basis, curriculum are used, and parent-child interaction is modeled. In this section, we present preliminary data on pilot participants, including a demographic and risk profile, and a description of services received.

Demographic Profile
As of the end of 2009, 33 fathers had received home visits at 5 sites. A demographic profile of these fathers are provided in Table 51. Different N sizes are due to missing data or information.

- 21% of fathers were under the age of 20 when their child was born.
- A little more than half of fathers were Black, with 33% Hispanic, and 8% White.
- 65% of fathers had completed high school, with 17% having some post-secondary education.
- 38% of fathers were employed, only 13% full-time. Moreover, 75% were reported to be struggling financially.
- All fathers were at least somewhat involved with their child.

Table 51. Demographic Characteristics of Fatherhood Pilot Participants at Program Entry	%
Father's Age (N=19)	
Under 16 years	5%
16-19 years	16%
20-22 years	32%
23-25 years	21%
26 years and older	26%
Median	22 years
Father Race/Ethnicity (N=24)	
Black	54%
Hispanic	33%
White	8%
Other	4%
Language Father Speaks (N=24)	
English	67%
Spanish	13%
English and Spanish	17%
Other	4%
Father's Highest Level of Education Completed (N=23)	
Eighth grade or less	0%
More than 8th grade, < than HS	35%
High school degree or GED	48%
Some vocational training or college	13%
College degree or graduate work	4%
Father's Employment Status (N=24)	
Not employed	63%
Employed	38%
Full-time	13%
Part-time, occasional work, or more than one job	25%
Fathers Enrolled in School (N=24)	21%
Fathers with Financial Difficulties (N=24)	75%
Fathers Socially Isolation (N=22)	23%
Father's Involvement with Child (N=16)	
Very involved	94%
Somewhat involved	6%
Fathers with an Arrest History (N=20)	30%

Home Visitation for Fathers:
Risk Profile and Program Participation

Risk Profile

The program has been successful in recruiting a high risk sample of fathers. Fathers complete the Child Abuse Potential Inventory– Rigidity subscale at program entry, six months, and then at the annual anniversaries of their start date. Data from program entry suggest that fathers have extremely rigid parenting attitudes which place them at greater risk for maltreating their children. The average fathers' rigidity score at program entry was 32.6, well above the normative average of 10.1 and the average for NFN mothers of 25. Further, 60% of fathers scored above the cut-off score of 30, again indicating a high level of risk.

Table 52. Father Pilot Participants' Entry Scores on the CAPI-R	
Rigidity (N=20)	32.6
% at or above Capi-R cut off score	60%

We also assess stress using the Kempe Family Stress Inventory. In Table 53, data on the ten Kempe items are presented. As shown, the

Table 53. Fathers' Kempe Scores, 2009			
Fathers' Kempe Scores 2009	**0**	**5**	**10**
1. Childhood History of Abuse/ Neglect (N=19)	53%	16%	32%
2. History of Crime, Substance Abuse, Mental Illness (N=20)	60%	25%	15%
3. CPS History (N=19)	95%	0%	5%
4. Low Self-esteem/ Social Isolation/ Depression (N=22)	32%	55%	14%
5. Multiple Stresses (N=22)	18%	55%	27%
6. Potential for Violence (N=20)	85%	0%	15%
7. Unrealistic Expectation of Child (N=22)	59%	41%	0%
8. Harsh Punishment (N=19)	84%	16%	0%
9. Negative Perception of Child (N=18)	100%	0%	0%
10. Child Unwanted/ Poor Bonding (N=22)	18%	82%	0%

most stress was seen on the Childhood History of Abuse and Neglect Subscale, with 32% of fathers scoring in the severe range and an additional 16% scoring in the moderate range. Further, 27% of fathers scored in the severe range on the Multiple Stresses subscale, with an additional 55% scoring in the moderate range. These same subscales were also the most prevalent in mothers, but mothers had a greater percentage scoring in the severe range.

Program Participation

As shown in Table 54, fathers were visited in the home, on average, twice per month out of an attempted 3 visits. Including visits that take place outside of the home and social events, fathers are seen 2.6 times per month. These data on in-home visits are comparable to standard home visiting, however fathers receive more visits outside the home (0.4) as compared to mothers (0.1).

Table 54. Fatherhood Pilot: Frequency of Home Visits and Program Participation, 2009	2009 N=31
Average # of attempted home visits	3.2
Average # of completed home visits	2.0
Average # of office/out of home visits	0.4
Average # of NFN social events attended	0.2
Total # of contacts	2.6

Research Going Forward

In subsequent reports, we will provide more descriptive data on fathers participating in the fathering home visit pilot program. We will continue to document the frequency of services that fathers access and how long they typically stay in the program. In addition, we will provide preliminary outcome data for fathers to determine if, and how, they change during the course of their participation in the program. Specifically, we will examine changes in rigid parenting attitudes using the CAPI-R, changes in use of community resources using the CLS, and changes in attitudes of fathering using the Role of the Father Questionnaire.